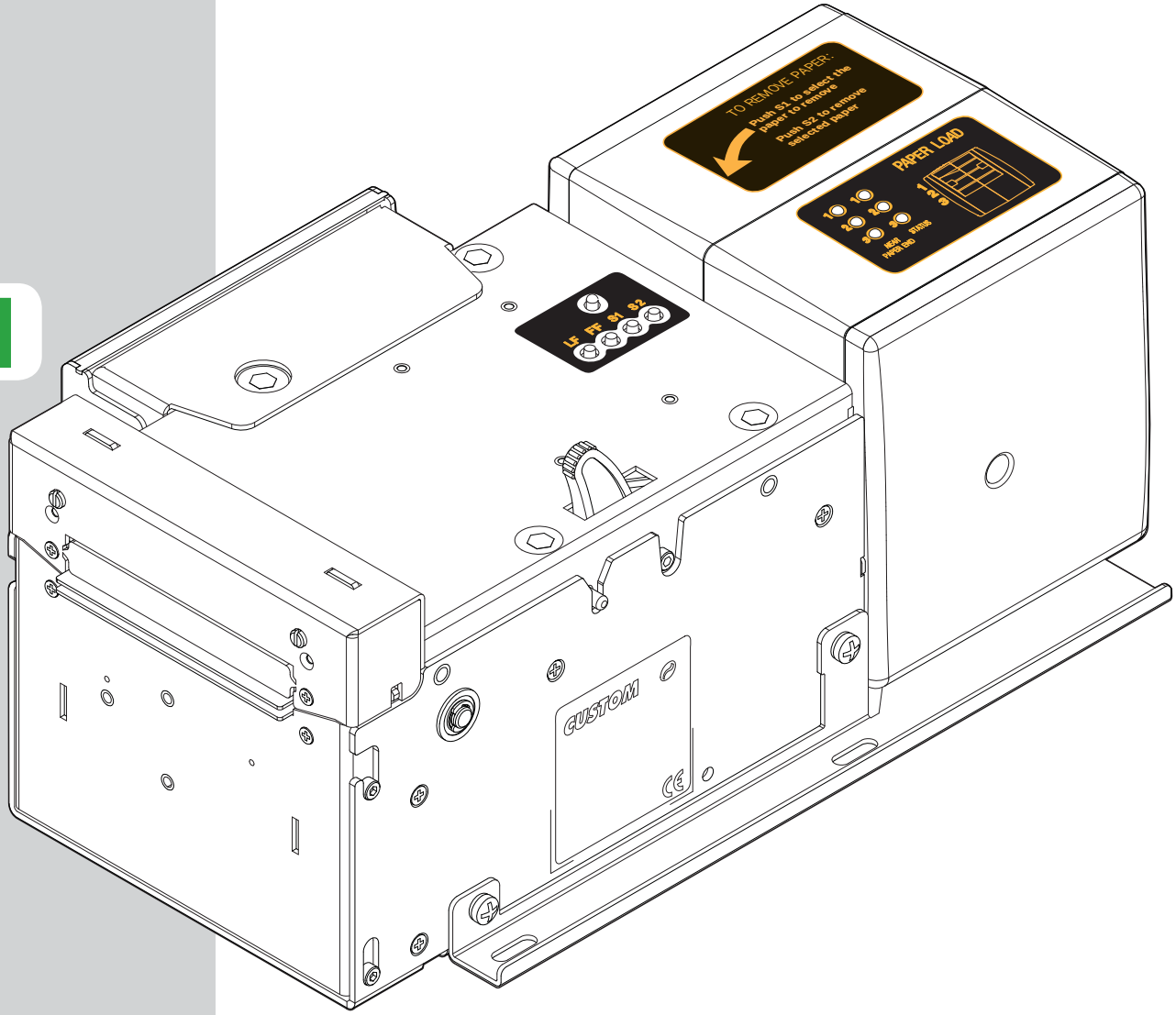
KPM300H-TF

USER MANUAL

OEM



Commands reference: DOMC-0005E

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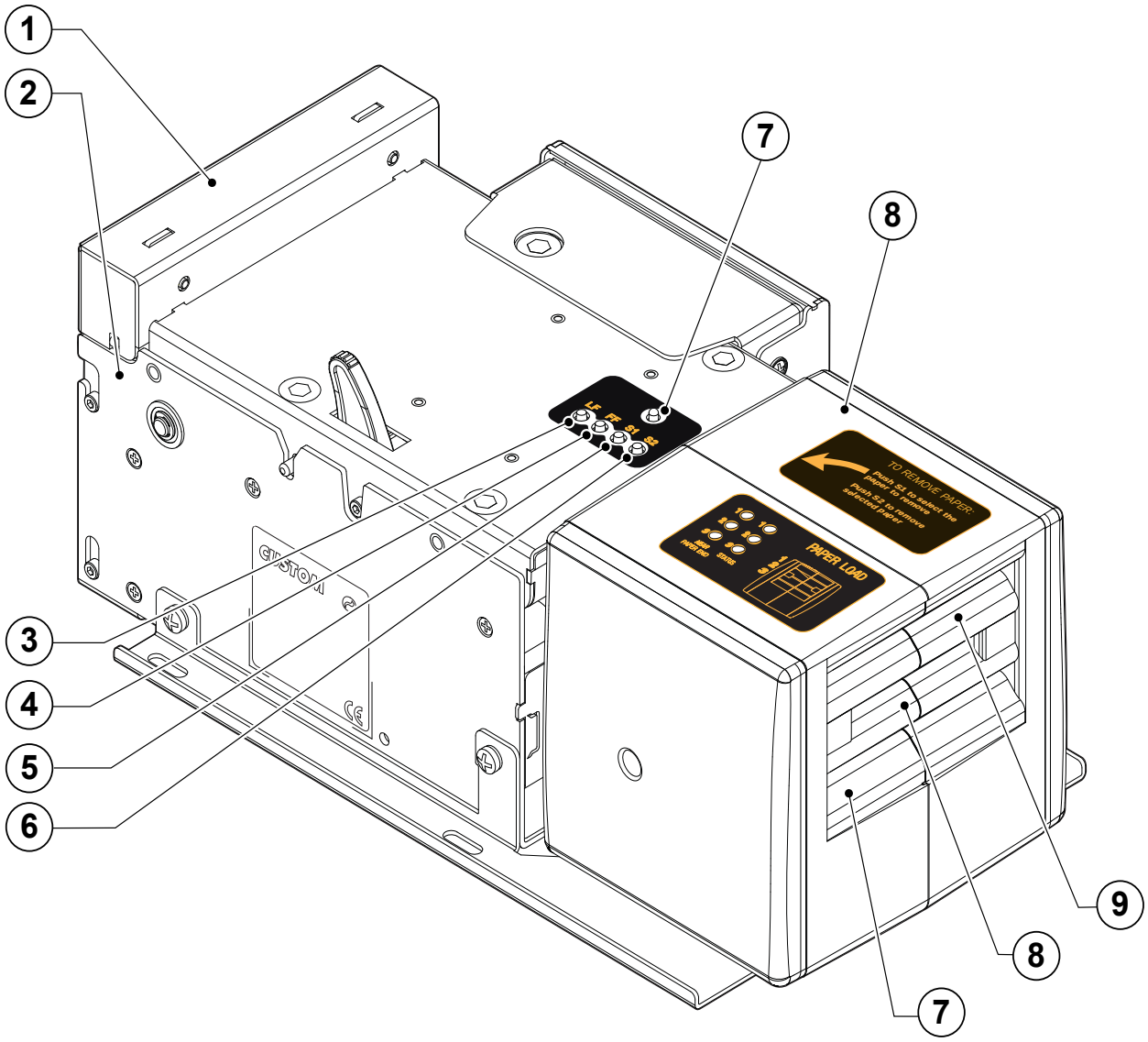
PRINTER COMPONENTS

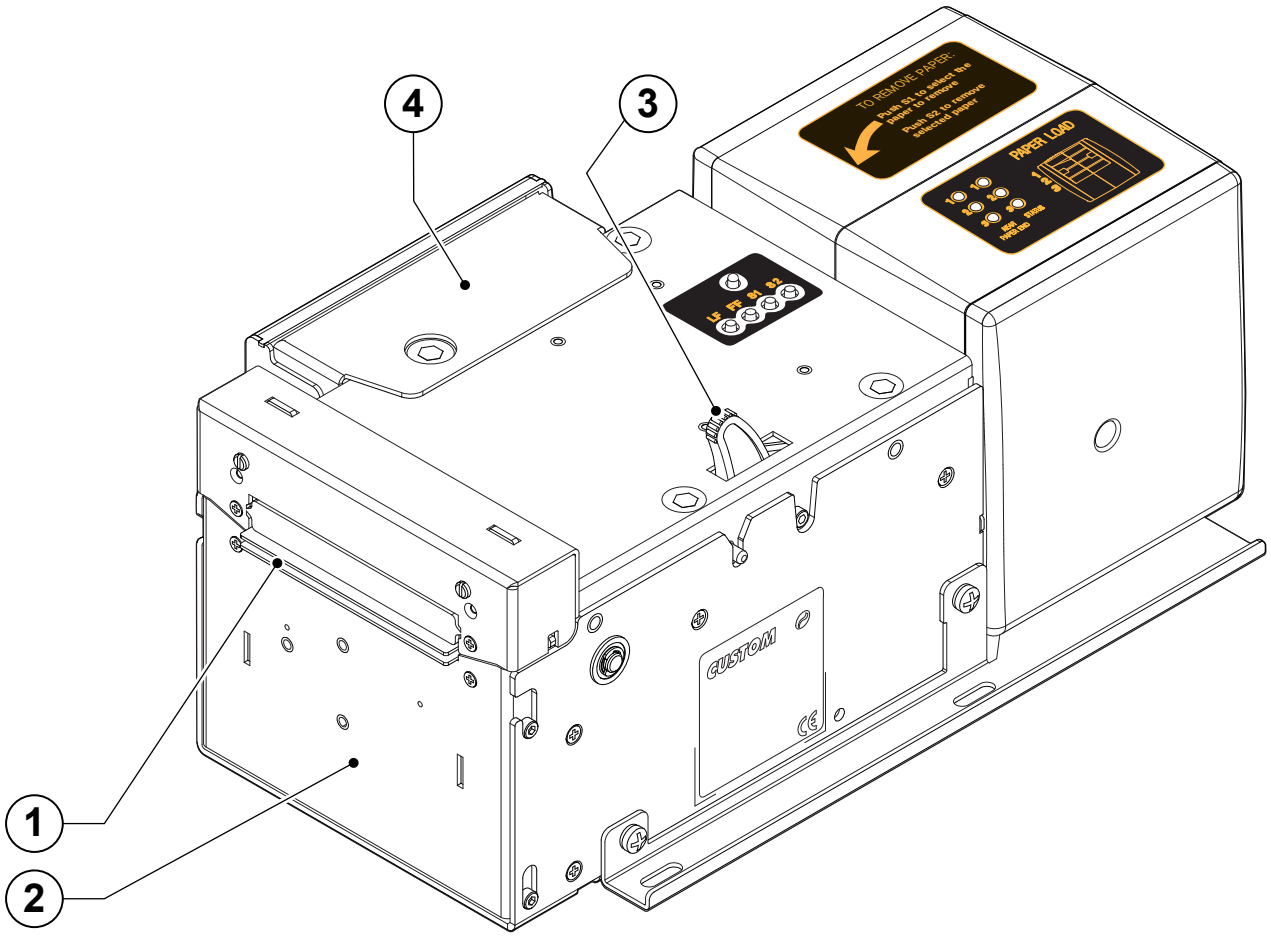
A. KPM300H-TF - Front external view

1 - Printing head set
2 - Printer frame
3 - LINE FEED key
4 - FORM FEED key
5 - S1 key
6 - S2 key
7 - Status led
8 - Triple Feeder unit
9 - Paper input 1
10 - Paper input 2
11 - Paper input 3



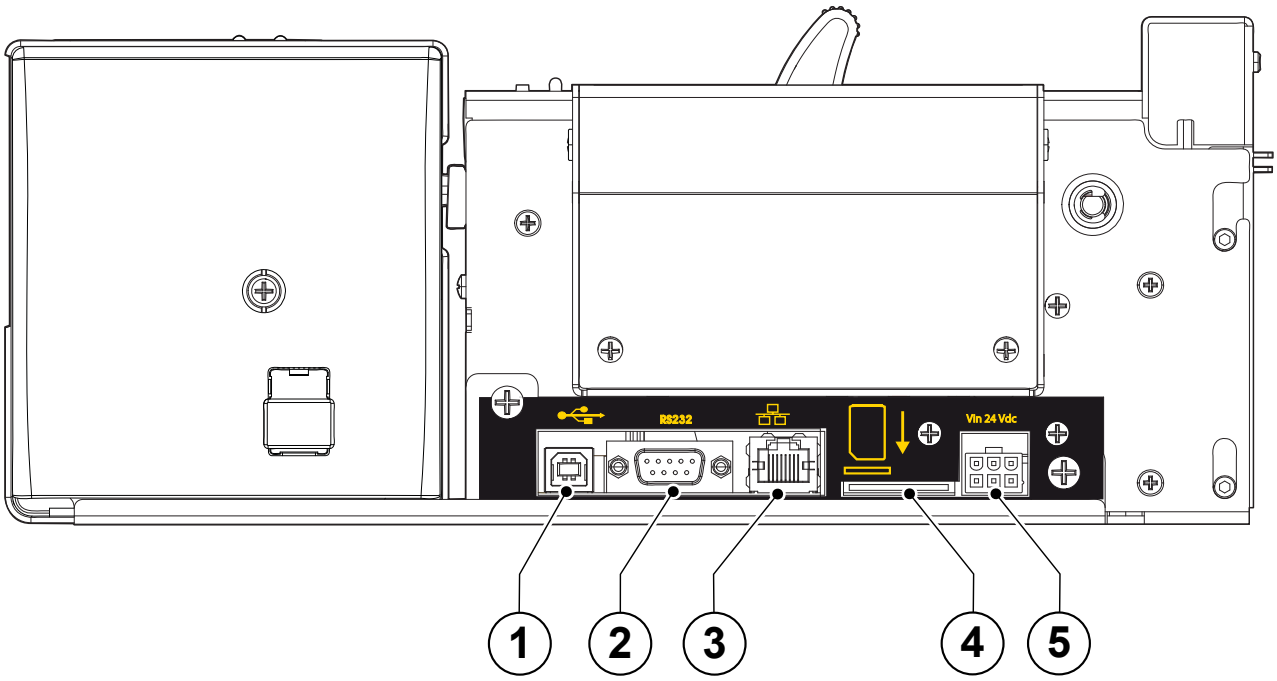
B. KPM300H-TF – Side external view

1 - Paper outfeed
2 - Cutter cover
3 - Release lever
4 - Closing carter



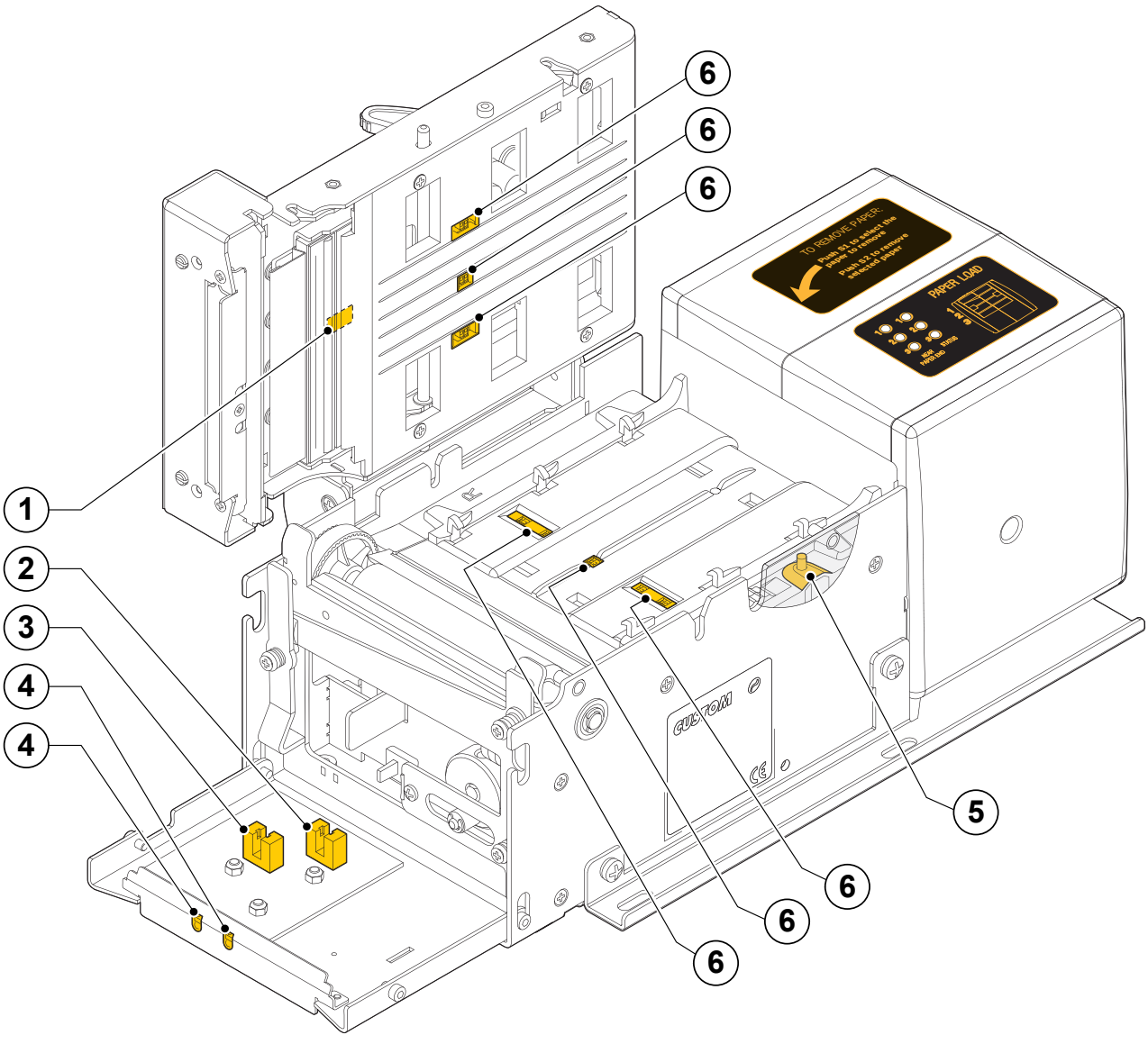
C. KPM300H-TF – External connectors view

1 - USB connector
2 - RS232 connector
3 - ETHERNET connector (optional)
4 - SD/MMC card (optional)
5 - Power Supply connector



D. KPM300H-TF - Inside view of sensors position

1 - Head temperature sensor
2 - Cutter position sensor
3 - Opening/closing front cover sensor
4 - Paper out presence
5 - Printing head set open
6 - Sensor of paper presence or notch sensor



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MANUAL CONTENTS

In addition to the Introduction which includes a description of the explanatory notes used in the manual, general safety information, how to unpack the printer and a brief description of the printer including its basic features, this manual is organized as follows:

Chapter 1: Contains the information required for correct printer installation and its proper use
Chapter 2: Contains information on interface specifications
Chapter 3: Contains technical specifications of the printer
Chapter 4: Contains the character sets (fonts) used by the printer

EXPLANATORY NOTES USED IN THIS MANUAL

N.B.
Gives important information or suggestions relative to the use of the printer.

WARNING
Information marked with this symbol must be carefully followed to guard against damaging the printer.

DANGER
Information marked with this symbol must be carefully followed to guard against operator injury or damage.

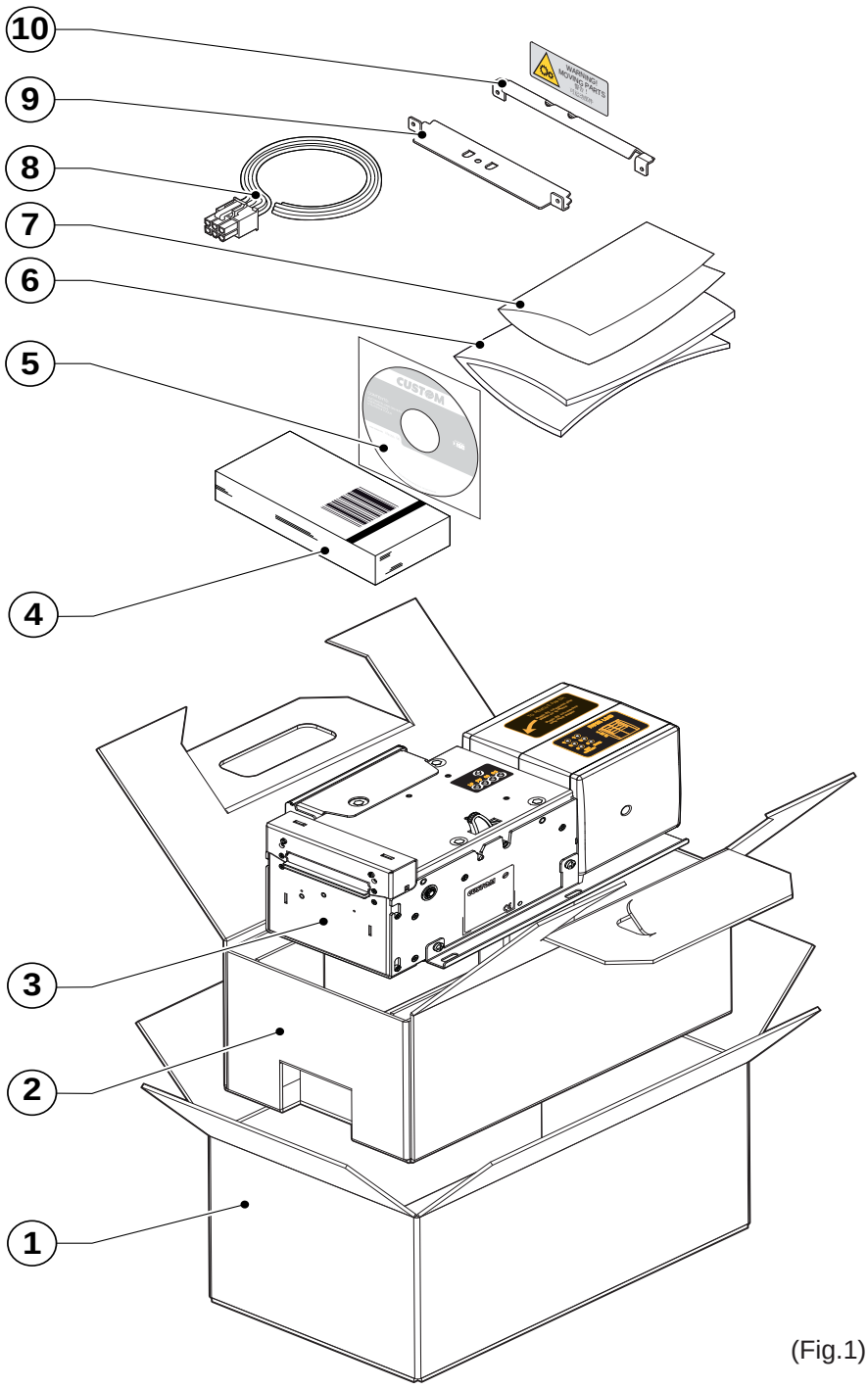
GENERAL SAFETY INFORMATION

- Read and keep the instructions which follow.
- Follow all warnings and instructions indicated on the printer.
- Before cleaning the printer, disconnect the power supply.
- Clean the printer with a damp cloth. Do not use liquid or spray products.
- Do not operate the printer near water.
- Do not use the printer on unstable surfaces that might cause it to fall and be seriously damaged.
- During the integration of the printer, we strongly warn to keep an adeguate paper loop outlet underneath the presenter, in order to allow the receipt being properly printed out.
- Only use the printer on hard surfaces and in environments that guarantee proper ventilation.
- Make sure the printer is placed in such a way as to avoid damage to its wiring.
- Use the type of electrical power supply indicated on the printer label. If in doubt, contact your retailer.
- Do not block the ventilation openings.
- Do not introduce foreign objects of any kind into the printer as this could cause a short circuit or damage parts that could jeopardize printer functioning.
- Do not spill liquids onto the printer.
- Do not carry out technical operations on the printer, with the exception of the scheduled maintenance procedures specifically indicated in the user manual.
- Disconnect the printer from the electricity supply and have it repaired by a specialized technician when:
    - A. The feed connector has been damaged.
    - B. Liquid has seeped inside the printer.
    - C. The printer has been exposed to rain or water.
    - D. The printer is not functioning normally despite the fact that all instructions in the users ma nual have been followed.
    - E. The printer has been dropped and its outer casing damaged.
    - F. Printer performance is poor.
    - G. The printer is not functioning.

UNPACKING THE PRINTER

Remove the printer from its carton being careful not to damage the packing material so that it may be re-used if the printer is to be transported in the future.
Make sure that all the components illustrated below are present and that there are no signs of damage. If there are, contact Customer Service.

1. Box
2. Packing frame
3. Printer
4. Fan Fold module
5. CD-rom
6. Installation instructions sheet
7. User manual
8. Power supply cable
9. “BURSTER” configuration kit
10. “CUT AND DROP” configuration kit



(Fig.1)

- Open the printer packaging
- Remove the upper packing frame content and remove the upper packing frame.
- Take out the printer.
- Keep the box, trays and packing materials in the event the printer must be transported/shipped in the future.

PRINTER FEATURES

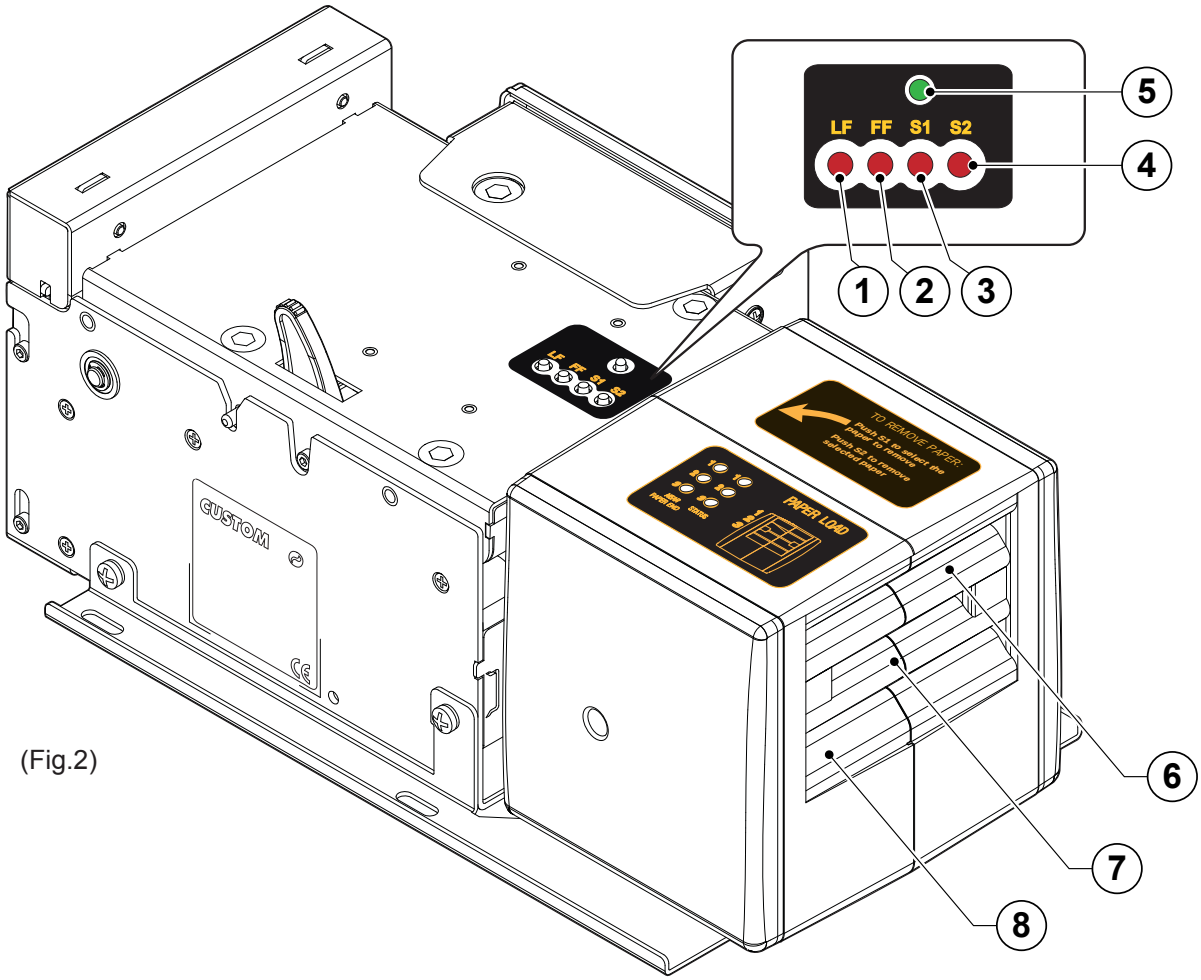
KPM300H-TF is a very fast ticket printer, on high quality and full printing. The ARM processor (266MHz) allows high and fast processing capability. The printer is available with optional barcode reader for reading pre-printed modules and manages both paper roll and fan-fold. The printer offers a wide range of options in addition to normal print features:

- Ticket width: from 54 to 82.5mm (2mm step) setting from printer setup, with paper thickness from 100 to 250 gr/m^2.
- Resolution 204 dpi / enhanced quality head
- Optionally equipped with barcode reader for reading pre-printed modules (Bar code UPC-A. UPC-E, EAN13, EAN8, CODE39, ITF, CODABAR, CODE93, CODE128, CODE32, PDF417) and DATAMATRIX.
- Optionally equipped with RFID Reader/writer (mifare/icode).
- High printing speed.
- Arm processor (266 MHz).
- Interfaces : Serial RS232, USB, ETHERNET (optional).
- ESC/POS™ emulation, SVELTA emulation.
- Character set fonts (ESC/POS™ emulation: 3 standard and international; SVELTA emulation: 20 fonts) and TrueType fonts management.
- Completely or partially programmable fonts.
- Double width/height, quadruple width/height, expanded, italic, rotated 90°, 180° and 270°.
- Receive buffer: 64 Kbytes.
- Definition of function macros for automatic operation repetition.
- Internal programmable counter.
- Graphic print mode.
- Print density (from -50% to +50%).
- Sensors: Black mark sensor available in 6 position and translucent gap, ticket sensor, hole mark sensor (set by software)
- Working with paper roll or Fanfold module
- Paper cutter.
- Optionally equipped with SD/MMC Multimedia Card for logo, font storage expansion.
- Equipped with Real Time clock.
- Options : Fan-Fold holder and external paper holder support.

PRINTER DESCRIPTION

The printer is comprised of a metal frame, printing mechanism, a cutter, an ejector and a paper load unit with three paper input (see fig.2 references 6,7,8). Located on the keypad (see fig.2) are the following keys: LINE FEED (1), FORM FEED (2), S1 (3), S2 (4) and STATUS led (5).

- LF LINE FEED key — When the LINE FEED key is pressed, the printer advances the paper so that it may be inserted manually in the printing mechanism. During power-up, if the LINE FEED key is held down, the printer enters the print setup routine. Following the print-out of the setup report, the printer remains in standby until a key is pressed or signals arrive from the serial port; each 8 characters it prints out hexadecimal and ASCII codes (if the characters are underlined, the receive buffer is full); see Receive buffer hexidecimal print-out.
- FF FORM FEED key — When the FORM FEED key is pressed, the printer execute the form feed. During power-up, if the FORM FEED key is held down, the printer executes the FONT TEST.
- S1 key — Normally, when the S1 key is pressed, doesn't execute any function. During power-up, if the S1 key is held down, the printer initializes the notch sensor and characterizes the paper.
- S2 key — If the Alignment is enabled, when the S2 key is pressed, the printer executes a ticket alignment and performs a cut



(Fig.2)

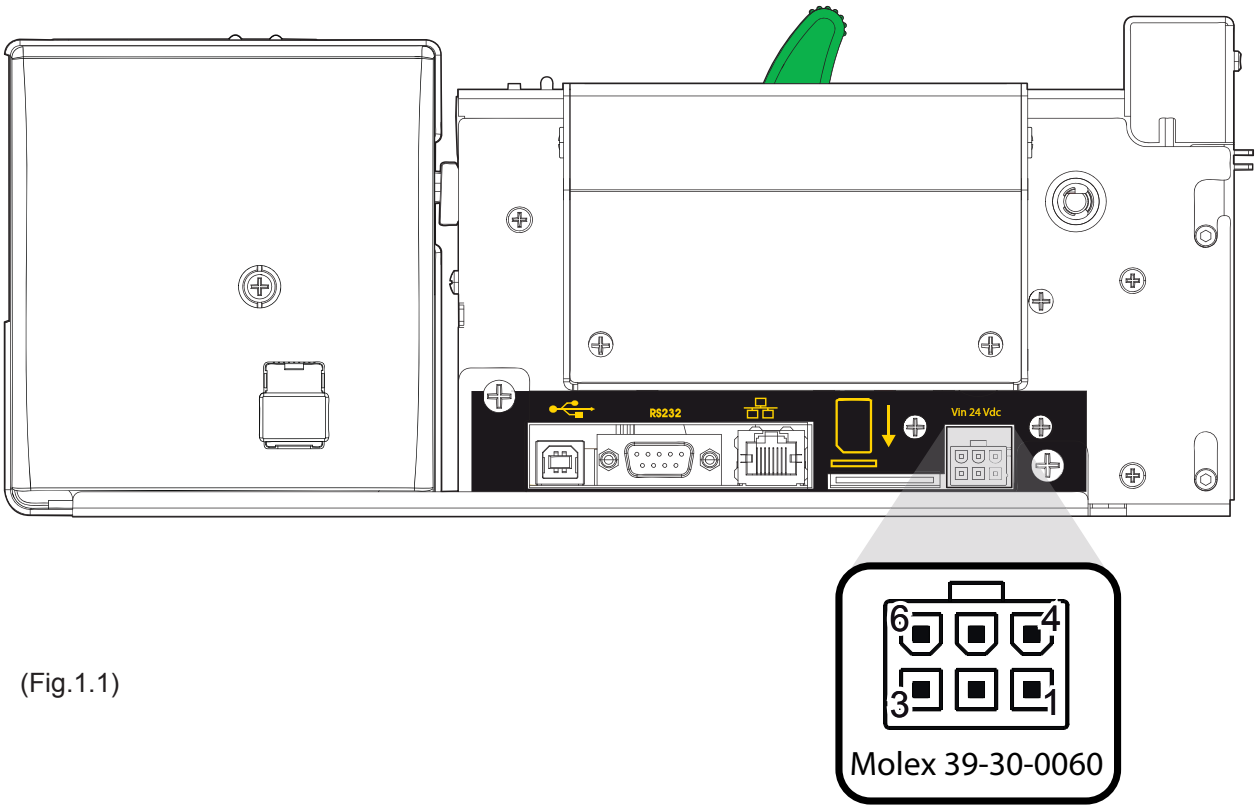
N.B.: During power-up, do not press the S2 key because the printer enter in a test modality that becomes unusable by keys; if this event occurs then turn off the printer and turn on without pressing any key.

- STATUS LED

The Status led indicates printer status; the check is made on-line. Given in the table below are the various LED signals and the corresponding printer status.
(Tab.1)

STATUS LED	COLOR	DESCRIPTION	
●	GREEN	Printer ON : no error	
☀	GREEN	**Communication status**	
		Nr. flashings	Description
		1	Receive data
		2	Reception errors (parity, frame error, overrun error)
		3	Command not recognized
		4	Command reception time out
☀	YELLOW	**Recovering error**	
		Nr. flashings	Description
		2	Heading over temperature
		3	Paper end
		4	Paper jam
		5	Power supply voltage incorrect
		6	Cover open
☀	RED	**Unrecovering error**	
		Nr. flashings	Description
		3	RAM error
		4	EEPROM error
		5	Cutter error
		6	Cutter cover open

1.1 CONNECTIONS



(Fig.1.1)

1.1.1 Power Supply

The printer is equipped with an external power supply outlet (see fig.1.1). The connector pin configuration is as follows :

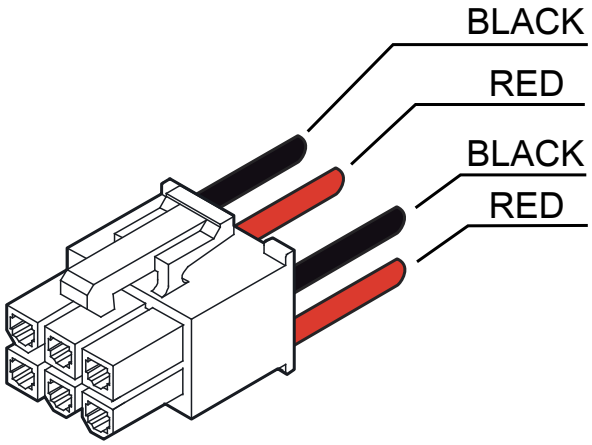
Model no. type: Header : Molex 39-30-0060 (vertical)
Housing: Molex 39-01-2065

PIN	SEGNALE
1	+24V
2	+24V
3	+24V
4	GND
5	GND
6	GND

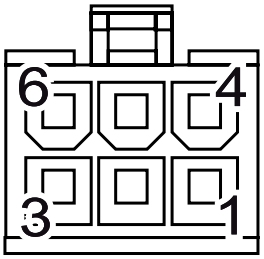
(Tab.1.1)

WARNING:
Respect power supply polarity.

This picture shows the power supply cable included in the printer packaging :



(Fig.1.2)



6 PIN (3X2)
FEMALE CONNETTOR

OPPOSITE VIEW SIDE
OF CABLE INSERTION

The connector pin configuration of this cable is as follows:

Female connector	Cable color	Signal
Pin 1	Red	+24V
Pin 2	Not connected	+24V
Pin 3	Red	+24V
Pin 4	Black	GND
Pin 5	Not connected	GND
Pin 6	Black	GND

(Tab.1.2)

NOTE: The red cable is for +24 Vdc.
The black cable is for signal ground.

1.2 SELF-TEST

During power-up, if the LF LINE FEED key is held down, the printer enters the autotest routine and prints out the Setup report (see fig.1.3). The printer will remain in standby in Hexadecimal dump mode (see par.1.5) until another key is pressed or characters are received through the printer communication port.

PRINTER SETTINGS

PRINTER TYPE KPM300
Barcode Reader.....Not Present
RFID Module.....Not Present
Paper Guide Type.....6 Sensors
PRINTING HEAD TYPE KPA80
INTERFACE RS232
PROGRAM MEMORY TEST.....OK
DYNAMIC RAM TEST.....OK
EEPROM TEST.....OK
CUTTER TEST.....OK
PRINTER HEAD Rav 561
HEAD VOLTAGE [V] = 24.29
HEAD TEMPERATURE [°C] = 30
POWER ON COUNTER = 1843
PAPER PRINTED [cm] = 76930
CUT COUNTER = 5507

Printer Emulation .....: **ESC/POS (TM)**
RS232 Baud Rate (1).....: **115200 bps**
RS232 Data Length (1) .....: **8 bits/chr**
RS232 Parity (1).....: **None**
RS232 Handshaking (1).....: **Xon/Xoff**
Busy Condition (2).....: **RxFull**
USB Mass Storage .....: **Enabled**
USB Address Number (3).....: **7**
Print Mode .....: **Normal**
Autofeed (4).....: **CR disabled**
Chars / inch (4).....: **A=15 B=20 cpi**
Speed / Quality.....: **Normal**
Paper Width.....: **82 mm**
Paper Threshold .....: **60%**
Notch Position .....: **Left Side**
Notch Threshold (5).....: **50%**
Notch Distance [mm] (5).....: **+20.0**
Ticket Locking (5) .....: **Enabled**
PaperEnd Buffer Clear .....: **Disabled**
Print Density.....: **0%**

[LF] *enter Printer Setup*
[FF] *enter Ethernet Setup*
[S1] *enter Clock Setup*
[S2] *skip Setup*

(Fig.1.3)

NOTE:

(1) : Parameter valid only with serial interface.

(2) : Parameter valid only with serial interface; using this parameter, it is possible to select whether the Busy signal is activated when the printer is both in Off Line status and the buffer is full, or only if the reception buffer is full.

(3) : This parameter is used to identify univocally the USB printer by a numerical address code, if on the PC are connected two printers that are the same models for example two USB printers.

(4) : This parameter is displayed if the printer emulation is set to ESC/POS™.

(5) : If the "Notch Position" parameter is set to "Disabled" this parameter doesn't appear in the "Printer Setup".

Printer operating status is indicated in the configuration print-out in which, next to the name of the components displayed (see figure 1.3), the following information is given:

INTERFACE	is given the interface present (RS232).
PROGRAM MEMORY TEST	the message OK appears if functioning and NOT OK if faulty.
DYNAMIC RAM TEST	the message OK appears if functioning and NOT OK if faulty.
EEPROM TEST	the message OK appears if functioning and NOT OK if faulty.
CUTTER TEST	the message OK appears if functioning and NOT OK if faulty.
HEAD VOLTAGE	is given the voltage of the head.
HEAD TEMPERATURE	is given the temperature of the head.
POWER ON COUNTER	is given the number of power-ups made.
PAPER PRINTED	is given the number of centimeters of paper printed.
CUT COUNTER	is given the number of cuts made.

1.3 CONFIGURATION

In KPM300H-TF models with Ethernet interface, the printer permits the configuration of default parameters divided into two groups:

- parameters for Ethernet setup;
- parameters for printer setup.

Both the groups of parameters are configurable in three different ways:

1. by entering the Setup Mode (see par.1.3.1 and par.1.3.2);
2. by entering the "Printer Setup" page and the "Ethernet Setup" page of the Embedded Web Server (see par.C.2.3);
3. by editing the "Setup.ini" file from Mass Storage (see par.C.6.2) or by FTP Server connection (see par.C.6.3).

In the Setup Mode, it's possible to configure both the groups or skip one of them following the instructions printed on the paper for the FORM FEED key and LINE FEED key functionality.

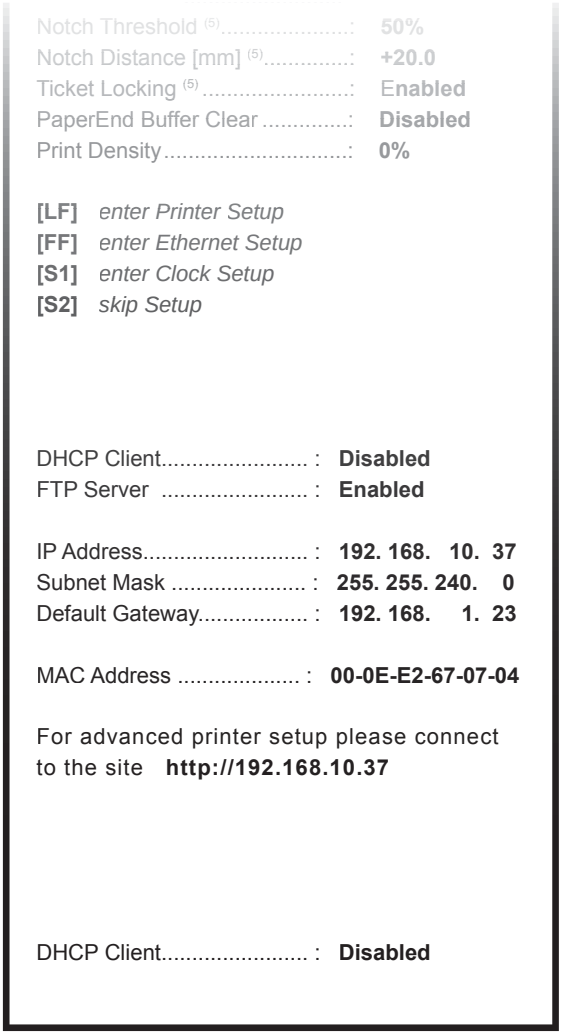
1.3.1 Ethernet setup (only for models with Ethernet interface)

After printing the Setup report with printer's parameters (fig.1.3), press FF FORM FEED key to enter the ETHERNET parameters (see fig.1.4).

The Ethernet configurable parameters are:

- **DHCP Client:** Disabled[D] or Enabled.
- **FTP Server:** Disabled[D] or Enabled
- **IP Address:** printer IP network address; the network administrator assigns it.
- **Subnet Mask:** this parameter identifies the local network address.
- **Default gateway:** this parameter identifies the Gateway IP address used to send applications to the external network.
- **Mac address:** this is the number, provided by the constructor, that identifies the printer; this number is univocal. This parameter can't be modified by set up.

General notes:
The parameters marked with the symbol [D] are the default values.
Settings remain active even after the printer has been turned off.

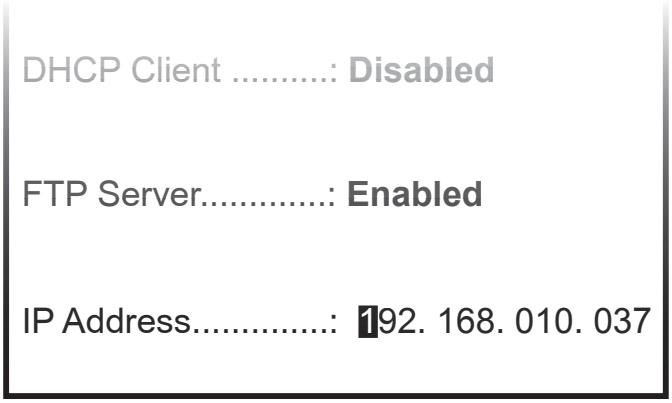

Notch Threshold (5).....: 50%
Notch Distance [mm] (5).....: +20.0
Ticket Locking (5).....: Enabled
PaperEnd Buffer Clear.....: Disabled
Print Density.....: 0%
[LF] enter Printer Setup
[FF] enter Ethernet Setup
[S1] enter Clock Setup
[S2] skip Setup
DHCP Client..... : Disabled
FTP Server ..... : Enabled
IP Address..... : 192. 168. 10. 37
Subnet Mask ..... : 255. 255. 240. 0
Default Gateway..... : 192. 168. 1. 23
MAC Address ..... : 00-0E-E2-67-07-04
For advanced printer setup please connect
to the site http://192.168.10.37
DHCP Client..... : Disabled

(Fig.1.4)

After printing the Ethernet parameters (fig.3.1), the first parameter to be modifies (DHCP Client) is printed. To configure Ethernet parameter, press LF LINE FEED key to modify the parameter and press FF FORM FEED key to move to the next parameter.

ATTENTION: any changes to network parameters will interrupt browser connection!!! If the server not responding you MUST reconnect to the new IP address set.

The “IP Address” parameter is a number, in dotted decimal, composed by 4 bytes that identifies the IP address in 32 bit. Each byte is composed by three-digit number, of a maximum value of 255. (see fig.1.5).



(Fig.1.5)

To change this value is possible to modify the digits of each byte

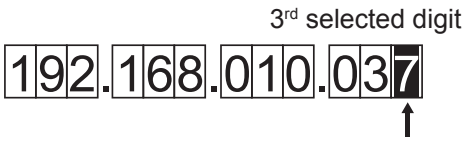
192	.	168	.	000	.	007
1st byte		2nd byte		3rd byte		4th byte

1° byte:	1	9	2
	1st digit	2nd digit	3rd digit

where
1st digit: 0 - 2
2nddigit ; 3rd digit: 0 - 9

The selected digit is highlighted (the number is written in negative mode).
Press FORM FEED key to modify the value of the highlighted digit; every single FORM FEED key pressure increases of 1 his value. Once the value 9 (or 2) is reached the counting starts again from 0.
Pressing LINE FEED key to move the cursor on the next digit; if the cursor position is on the latest digit, proceed to next parameter pressing the LINE FEED key again.

For example to modify the value of “IP Address” parameter from 192.168.0.1 to 192.168.0.7 you have to change the 3rd digit of 4th byte replacing 1 with 7.



NOTE: The first digit of each byte can assumes only values between 0-2 because the maximum value is 255.

1.3.2 Printer setup

This printer permits the configuration of default parameters. The printer's configurable parameters are:

- **Printer Emulation:** SVELTA[D], ESC/POS™.
- **RS232 Baud Rate :** 115200[D], 57600, 38400, 19200, 9600, 4800, 2400, 1200.
- **RS232 Data length :** 7, 8[D] bits/car.
- **RS232 Parity :** None[D], even, odd.
- **RS232 Handshaking :** XON/XOFF[D] , Hardware.
- **Busy condition :** RXFull[D] , OffLine/RXFull.
- **USB Mass Storage:** Disabled[D] , Enabled.
- **USB Address Number :** 0[D], 1, 2, 3, 4, 5, 6, 7, 8, 9.
- **Print mode:** Normal[D] or Reverse.
- **Autofeed:** CR disabled[D] , CR enabled.
- **Chars/Inch:** A=11 B=15 cpi, A=15 B=20 cpi[D].
- **Speed/Quality :** Normal, High quality , High Speed[D].
- **Paper width** : 54mm, 56mm, 58mm, 60mm, 62mm, 64mm, 66mm[D], 68mm, 70mm, 72mm, 74mm, 76mm, 78mm, 80mm, 82mm.
- **Paper Threshold**(6) : 30%, 40%, 50%, 60%[D], 70%, 80%, 90%.
- **Notch Position**(7) : Disabled[D], Left Side, Left Center. Right Side, Right Center, Up Center, Low Center, Tr. Center.
- **Notch Threshold(8):** 30%, 40%[D], 50%, 60%, 70%, 80%, 90%.
- **Notch Distance Sign(5) :** +[D] , -
- **Notch Distance [mm x 10](5)(9) :** 0[D], 1, 2, 3, 4, 5, 6, 7, 8, 9.
- **Notch Distance [mm x 1](5)(9) :** 0[D], 1, 2, 3, 4, 5, 6, 7, 8, 9.
- **Notch Distance [mm x .1](5)(9) :** 0[D], 1, 2, 3, 4, 5, 6, 7, 8, 9.
- **Ticket Locking(10):** Disabled[D], Enabled, By Printer, By Feeder, Complete.
- **PaperEnd Buffer Clear :** Disabled[D] , Enabled.
- **Print Density:** -50%, -37%, -25%, -12%, 0[D],+12%, +25%, +37%, +50%.

General notes:

The parameters marked with the symbol [D] are the default values.
Settings remain active even after the printer has been turned off.

NOTE:

(6) : This parameter indicates the threshold value under the sensor detect the paper.

(7) : This parameter sets which sensor is used as notch sensor. There are two sensor operating mode: reflection or transparence.

(8) : This parameter is used to detect the presence of the notch. In order to better identify the optimum threshold for the paper being used, a paper characterization function is also available in the setup.

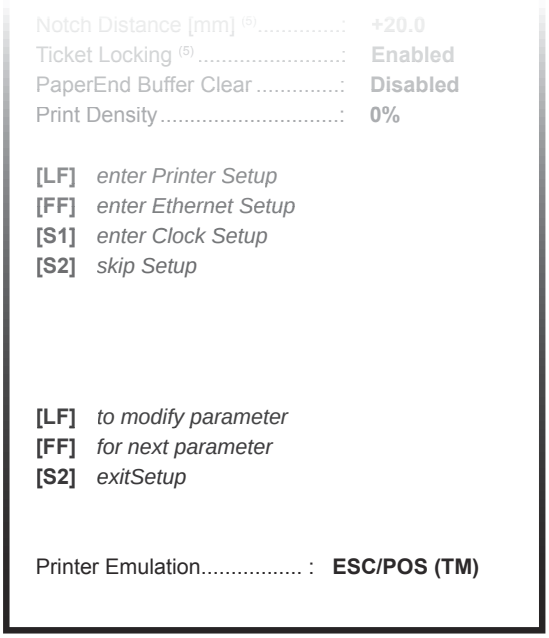
(9) : The "Notch distance" parameter represents the distance in mm from the upper margin of the ticket to the black mark on the ticket. For example, to set notch distance to 15 mm, modify the following parameters in order to obtain the desired values as indicated :

Notch Dist. [mm x 10]	: 1
Notch Dist. [mm x 1]	: 5
Notch Dist. [mm x .1]	: 0

(10) : The "Ticket locking" parameter is used to set the ticket block when the paper is inside the printer. To set the value modify the parameter as follows:

By Printer:	The motor remain switched on also at the printing end.
By Feeder:	Stops the paper of the not active (idle) feeders; to prevent that the paper parked, in a idle feeder, come dragged inside the printer.
Complete:	Stop the ticket is made by the printer and feeder; combination of the two preceeding effetcs.

After printing the Setup report with printer's parameters (fig.1.3), press LF LINE FEED key to enter the Setup mode (see fig.1.6).



(Fig.1.6)

After pressing LF key, the first parameter to be modified (Printer Emulation) is printed. To modify printer's parameters follow the instructions printed on the paper for the FORM FEED key and LINE FEED key functionality.

The settings made are stored in EEPROM (nonvolatile memory).

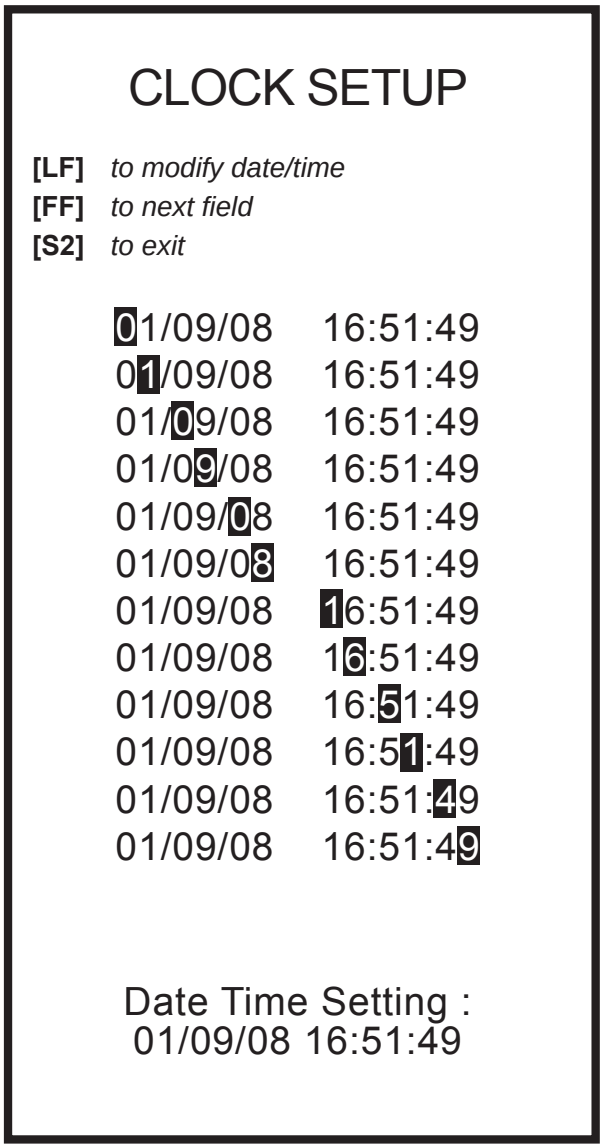
1.4 HEXADECIMAL DUMP

This function is used to diagnose the characters received through the communication port; the characters are printed out both as hexadecimal codes and ASCII codes.
Once the self-test routine has finished, the printer enters Hexadecimal Dump mode. The printer remains in standby until a key is pressed or characters are received through the communication port.
For every 8 characters received, the hexadecimal and corresponding ASCII codes are printed out (if the characters are underlined, the receive buffer is full). Shown below is an example of a Hexadecimal Dump:

48	65	78	61	64	65	63	69	Hexadeci
6D	61	6C	20	64	75	6D	70	mal dump
20	66	75	6E	63	74	69	6F	functio
6E	20	30	31	32	33	34	35	n 012345
36	37	38	39	61	62	63	64	6789abcd
65	66	67	68	69	6A	6B	6C	efghijkl
6D	6E	6F	70	71	72	73	74	mnopqrst
75	76	77	78	79	7A			uvwxyz

1.5 CALENDAR CLOCK

The printer is equipped with a Real Time Clock. During power-up, held down the LINE FEED key to enter in the printer configuration mode. Pressing the S1 key to enter in the clock configuration (see fig. 1.7).
Pressing the LINE FEED key to modify date / time; the printer will be print the upated the date and time.
Follow the instructions printed on the paper for the key functionality. The highlighted digit (the number is written in negative mode) indicates the digit to be modified. Pressing LINE FEED key to modify the value of the highlighted digit; every single LINE FEED key pressure increases of 1 his value. Once the value 9 is reached the counting starts again from 0.
Pressing FORM FEED key to move the cursor on the next digit; if the cursor position is on the latest digit you can proceed to next parameter pressing the FORM FEE key again.
Pressing S2 key to exit and terminate the setting procedure.



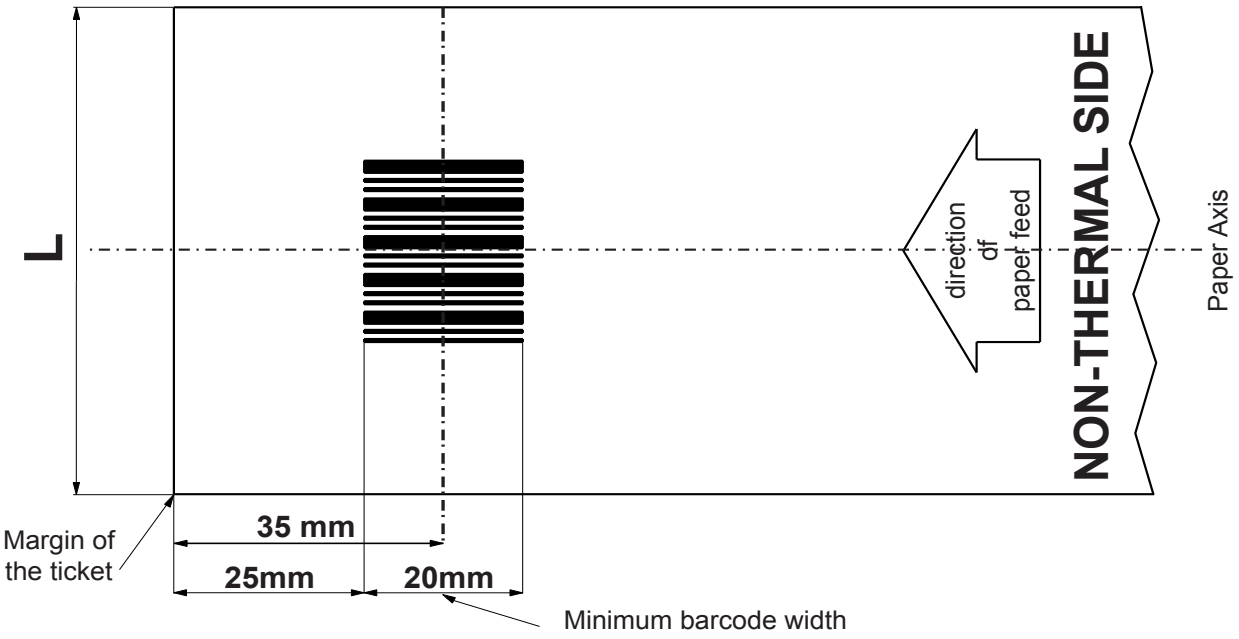
(Fig.1.7)

1.6 PAPER SPECIFICATIONS

KPM300H-TF prints on ticket width from 54 to 82.5 mm adjustable by the user; this printer manages both paper roll, fan-fold and ticket with notch.
The printer is available with optional barcode laser reader (CCD scanner) for reading pre-printed modules and optional RFID reader/writer (mifare/Icode)
The following paragraphs give the specifi cations and dimensions for each ticket confi guration.

1.6.1 Specifications for ticket with barcode (only for printer models with barcode reader)

Place the barcode on the non-heat sensitive side of the ticket, 25mm far from the margin to allow a correct reading when the ticket is aligned with the print (see fig.1.8).



where:
L = represents the paper width used (54 ÷ 82.5 mm).

NOTE: See the table 3.2 of par. 3.1 for the main barcode specifications (if the printer is equipped with the barcode reader).

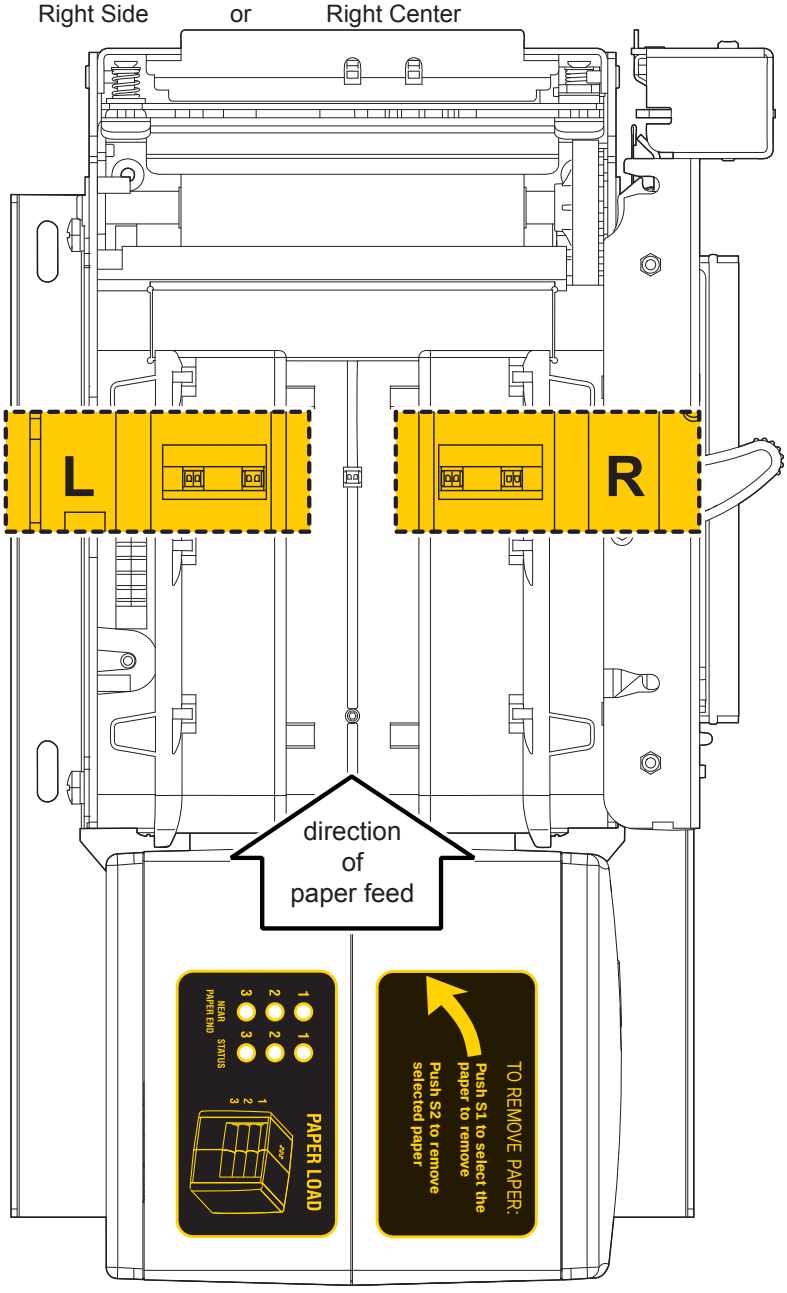
1.6.2 Specifications for ticket with notch

Printer is provided with 5 sensors for the notch detection as shown in fig.1.9, where:

- **L** = left lateral sensor
- **R** = right lateral sensor.

The printer manages tickets with notch; place the notch on the heat sensitive side or on the non-heat sensitive side of the ticket. “Notch Position” parameter (see printer setup) sets the positions for the notch as follows:

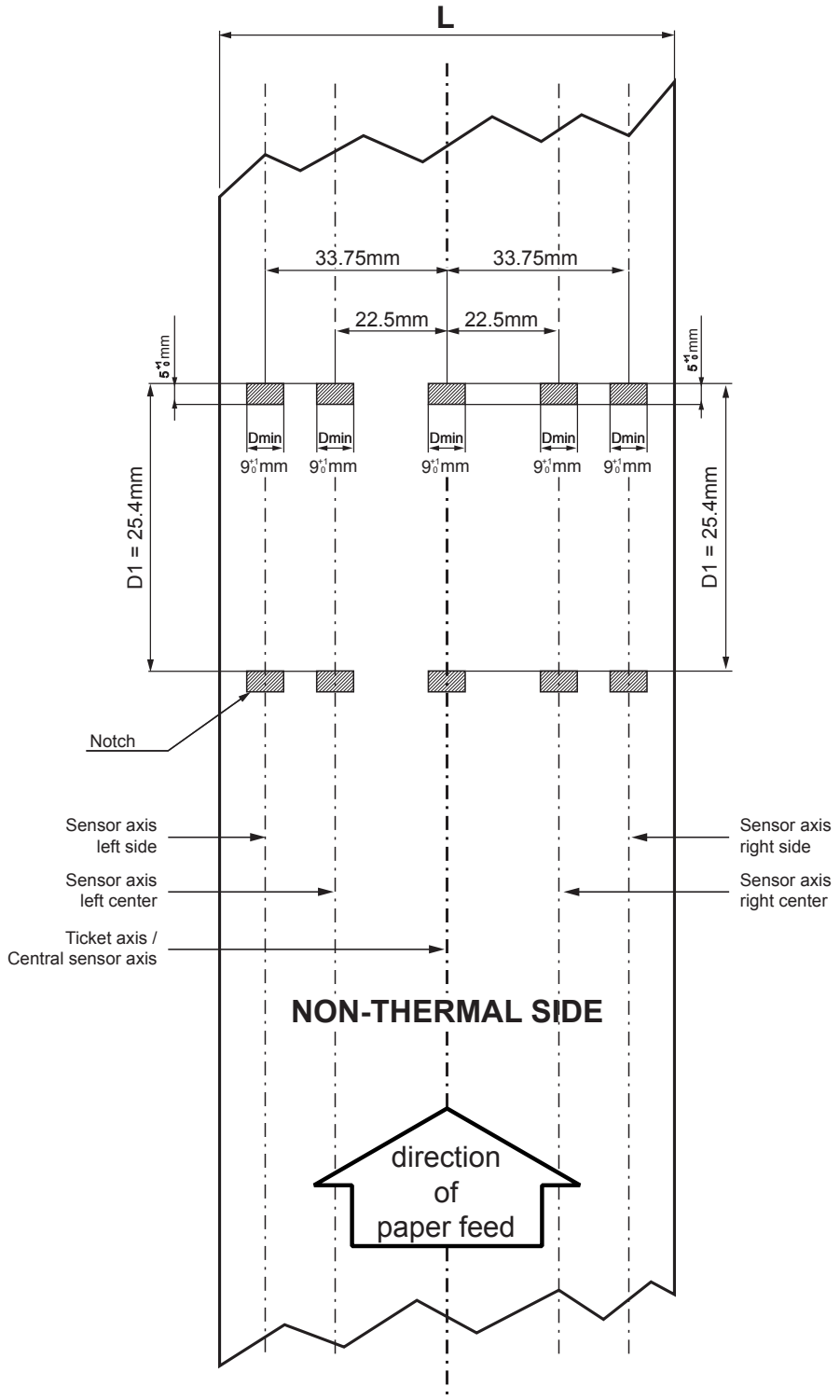
- Notch positioned on the heat sensitive side:
  Notch position = Up Center
- Notch positioned on the non-heat sensitive side:
  Notch position = Low Center
  Left Side or Left Center
  Right Side or Right Center



(Fig.1.9)

Fig. 1.10 shows an example of paper roll with notch on the non-heat sensitive side (non-printable side), where:

L = represents the paper width used (54 ÷ 82.5 mm);
Dmin = indicates the minimum notch dimension;
D1 = indicates the minimum notch to notch distance.



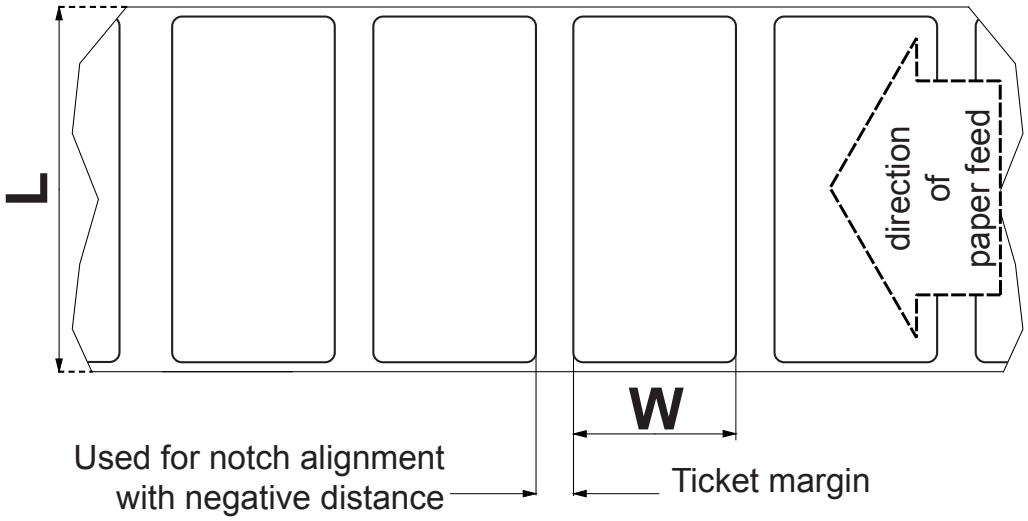
(Fig.1.10)

NOTE: If the notch was on the heat sensitive side, the image on the paper (fig.1.10) would be mirrored in regard to the paper axis.

- The printer automatically choice the sensor used to detect the paper presence according to the selected notch sensor. For example, if the setting for the “Notch position” parameter is “Low side”, “High center” is used to detect the paper presence.
- For a correct alignment, the notch distance from the margin must be between -5 and 66mm (notch sensor/print head distance);

1.6.3 Specifications for ticket with labels

If the distance of notch position from the margin is negative, the notch is outside the printable ticket. For example the printing on paper with labels (see fig.1.11).



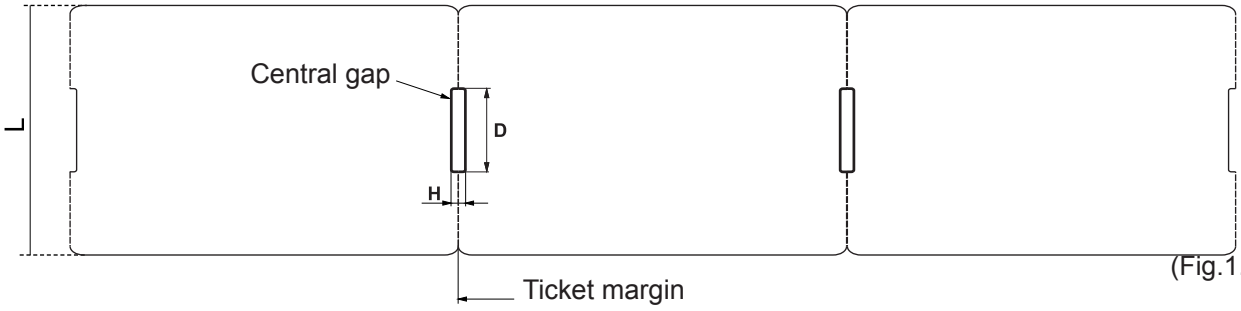
(Fig.1.11)

where
L = represents the paper width used (54 ÷ 82.5mm);
W = indicates the minimum managed length 25.4mm (1”).

With KPM300H-TF is possible to print label; the minimum length is 25.4mm (1”).

1.6.4 Specifications for ticket with gap

The printer manages tickets with gap (central or lateral gap). Set the “Notch position” parameter (see printer setup) with “Transparent Center” or “Transparent side” value for print and cut the ticket. Fig.1.12 shows an example for credit card size ticket (84 x 54mm) with central gap.



(Fig.1.12)

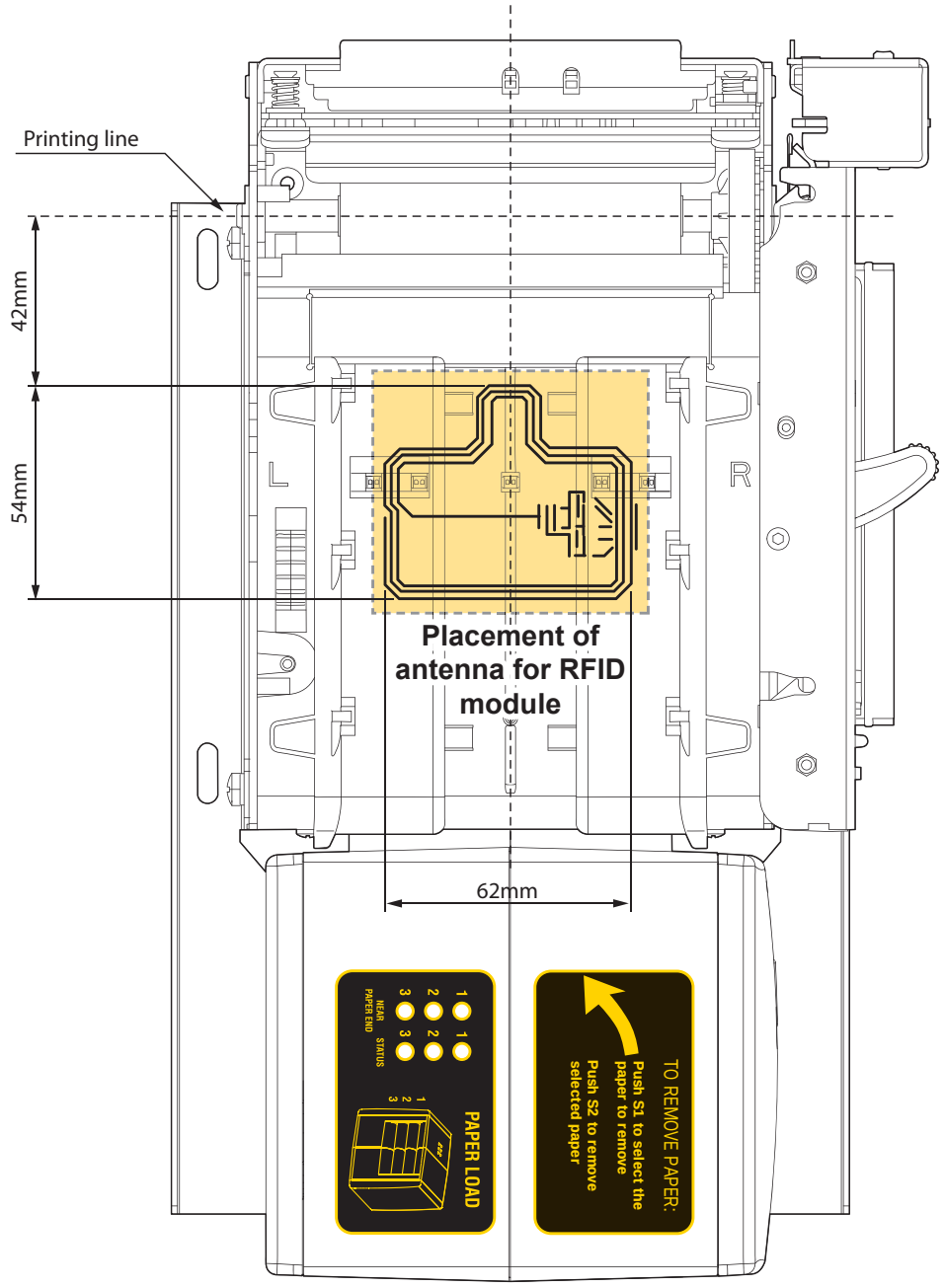
where
L = represents the paper width used (54 ÷ 82.5mm);
H = indicates the managed minimum height (2mm)
D = indicates the minimum width (10mm)

1.6.5 Specifications for ticket with RFID Tag (only for printer models with RFID reader)

The printer models equiped with RFID reader, manages ticket with RFID Tag. RFID (acronym for Radio Frequency IDentification) is a technology to identify automatically items using radio waves; this system is based on wireless data capture from RFID tag using appropriate readers. The RFID tag, or transponder, is made up of :

- the microchip that stores the data (including also a unique serial number written);
- an RFID antenna.

Under the paper guide (see fig. 1.13), an RFID transceiver module is mounted, provided with antenna, that allows to send and receive RF data to and from the tag. For this application the ticket dimensions are not binding but for good reading is important that the tag inside the ticket, after alignment, intersects the antenna area. The fig.1.13 shows the antenna's area and its position under the paper guide in the RFID printer model.



(Fig.1.13)

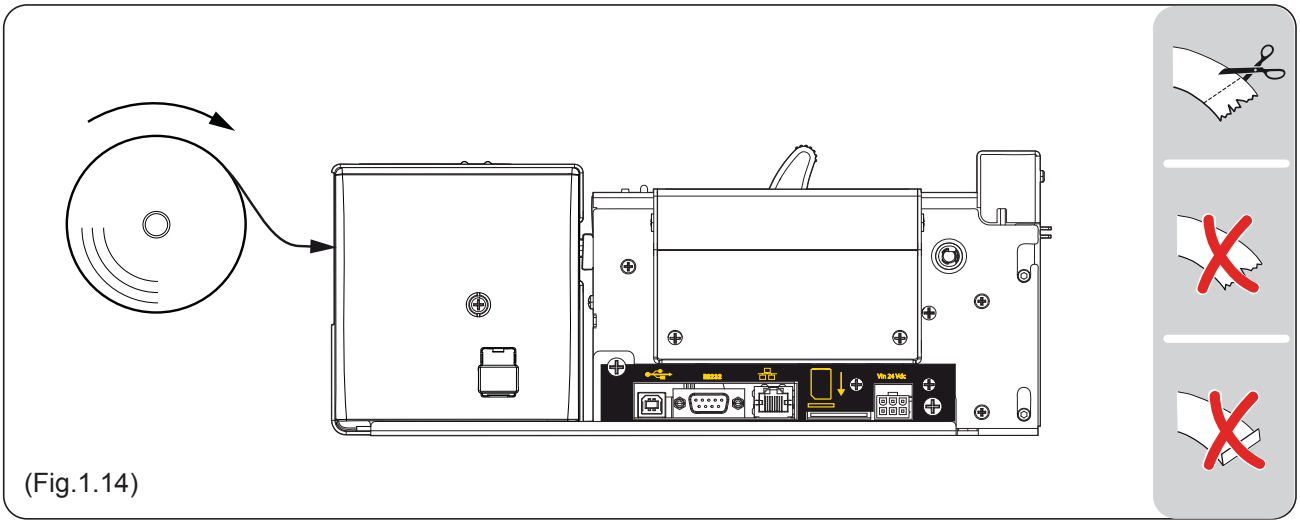
NOTE: Using ticket with RFID tag, the minimum managed length is a credit card size ticket (84x54 mm).

1.7 MAINTENANCE

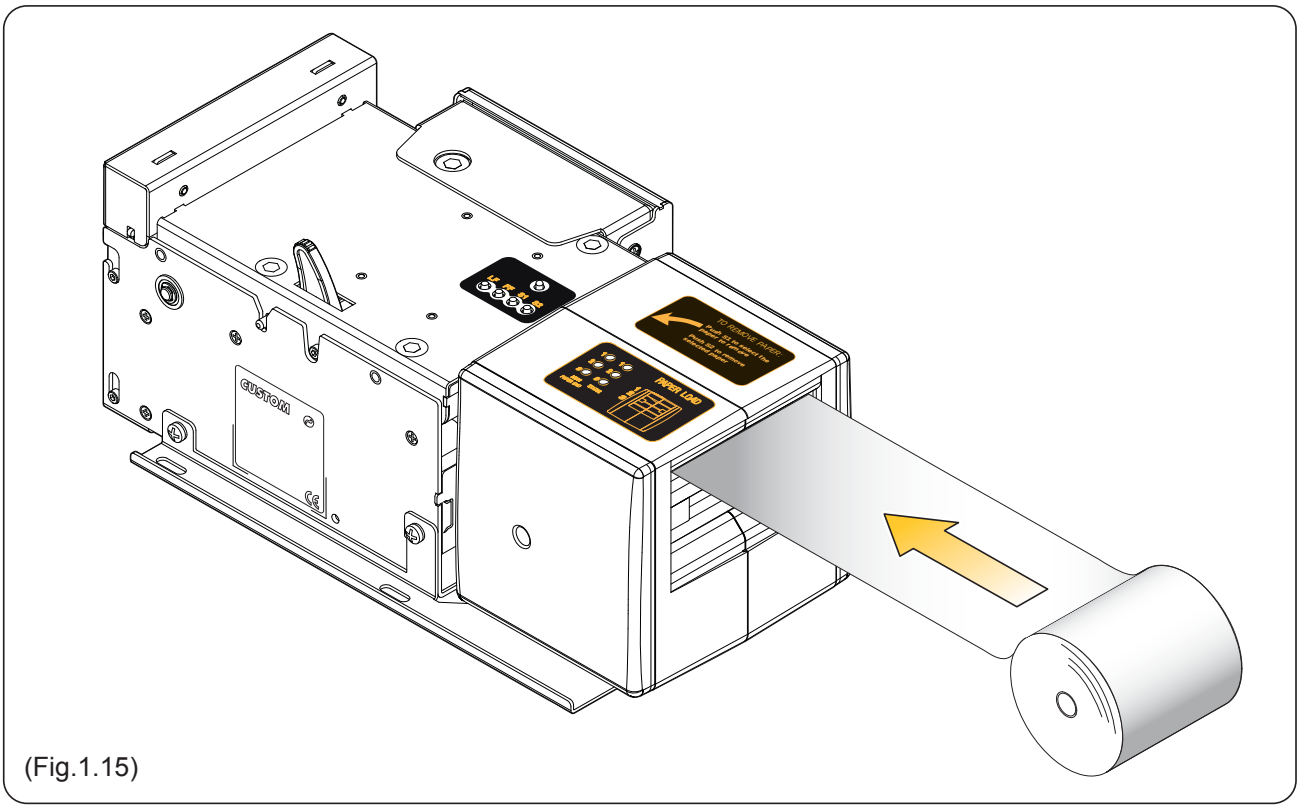
1.7.1 Changing the paper roll

Every paper change verify that there aren't paper off-cuts from the paper inlet and outlet; if this event happens remove the paper off-cuts before execute any other operation.
To change the paper roll, proceed as follows:

1. Position the paper roll so that it unrolls correctly as shown (see fig. 1.14);
2. Insert the end of the paper roll in the paper load opening on the triple feeder unit and wait for the paper to load automatically (see fig. 1.15);



(Fig.1.14)



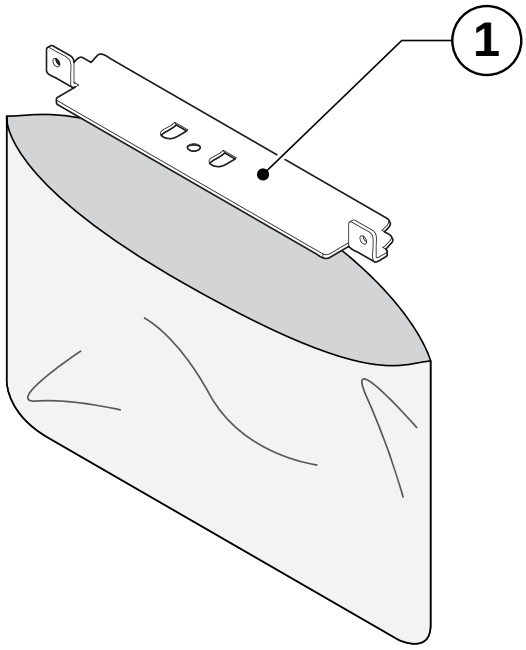
(Fig.1.15)

WARNING:
Before inserting the paper, make sure the cut is straight (see fig. 1.14).

1.7.2 “BURSTER” configuration

Printer is provided with a kit for the “BURSTER” configuration. The kit contains (see fig.1.16):

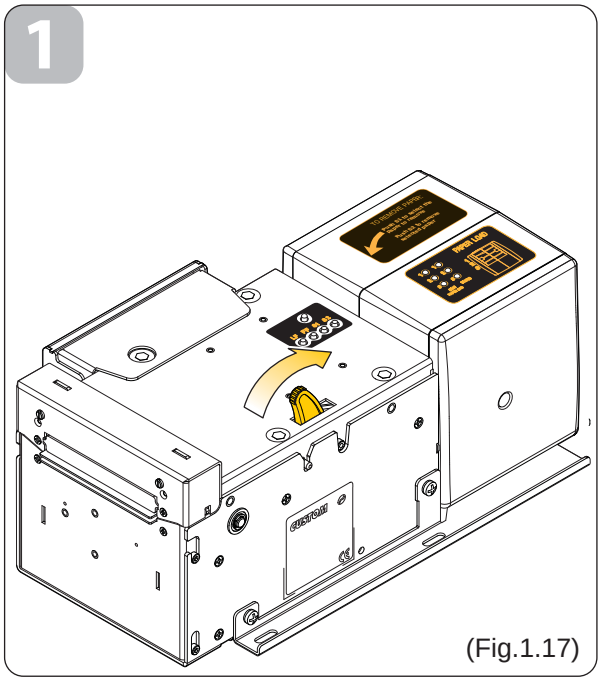
1. Upper paper outfeed mouth.



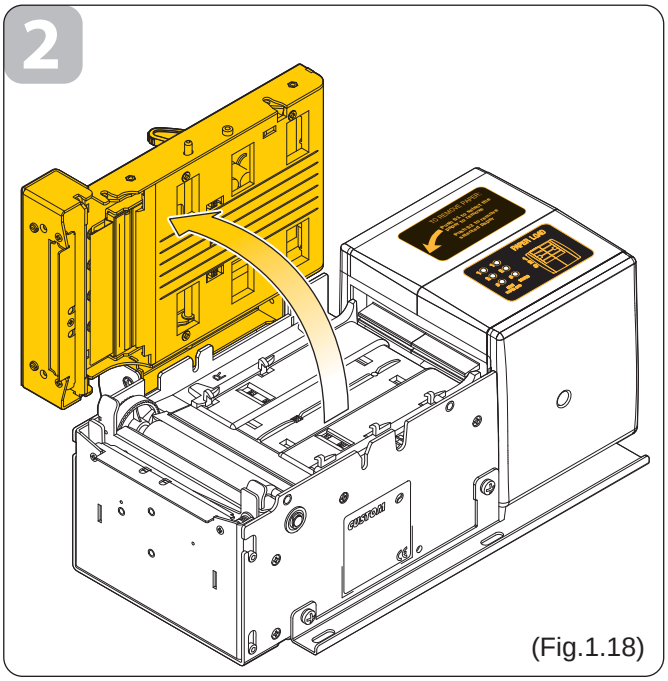
(Fig.1.16)

Assembly instruction

- Open the printer cover as shown in fig.1.17 and fig.1.18.

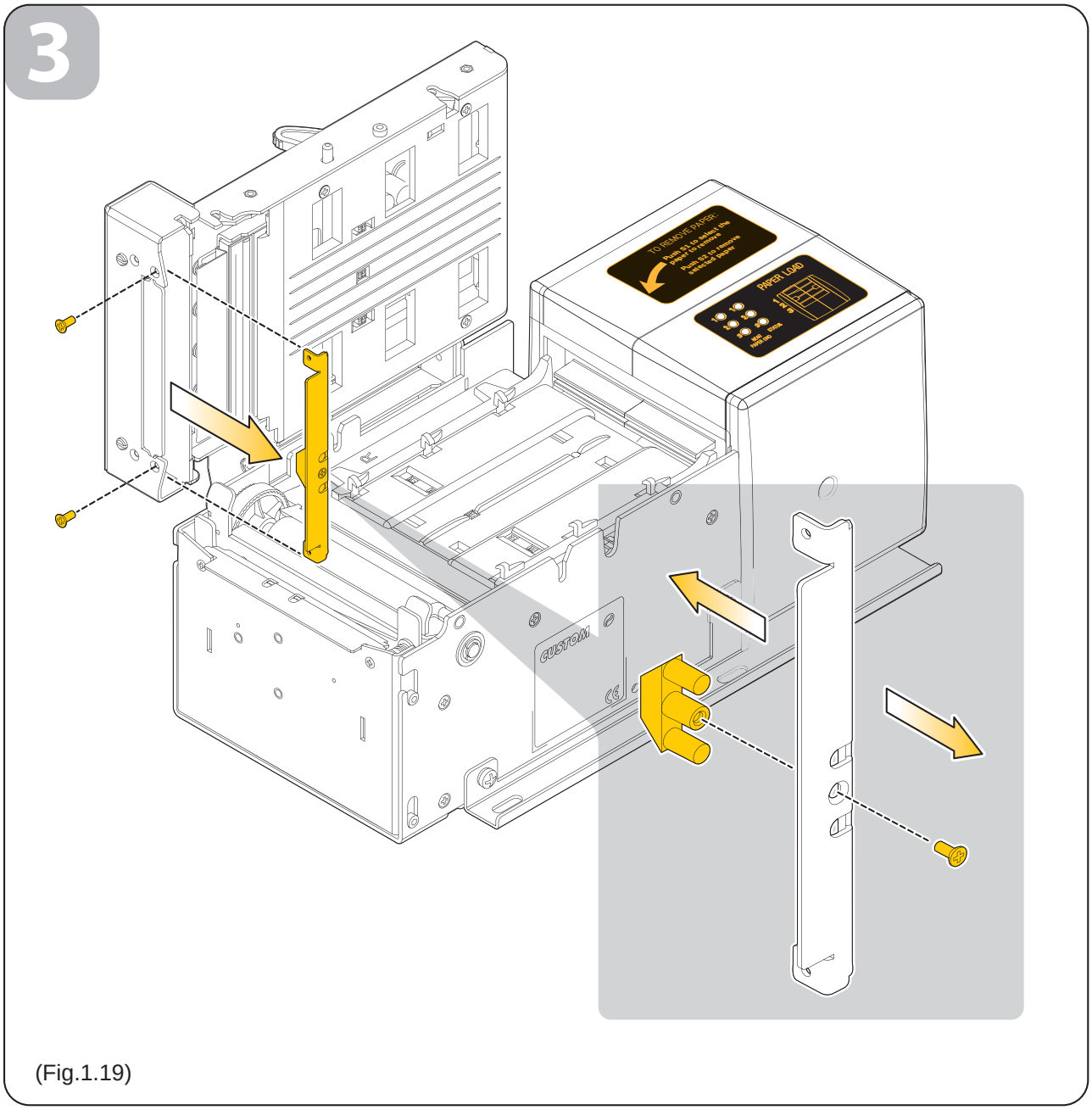


(Fig.1.17)



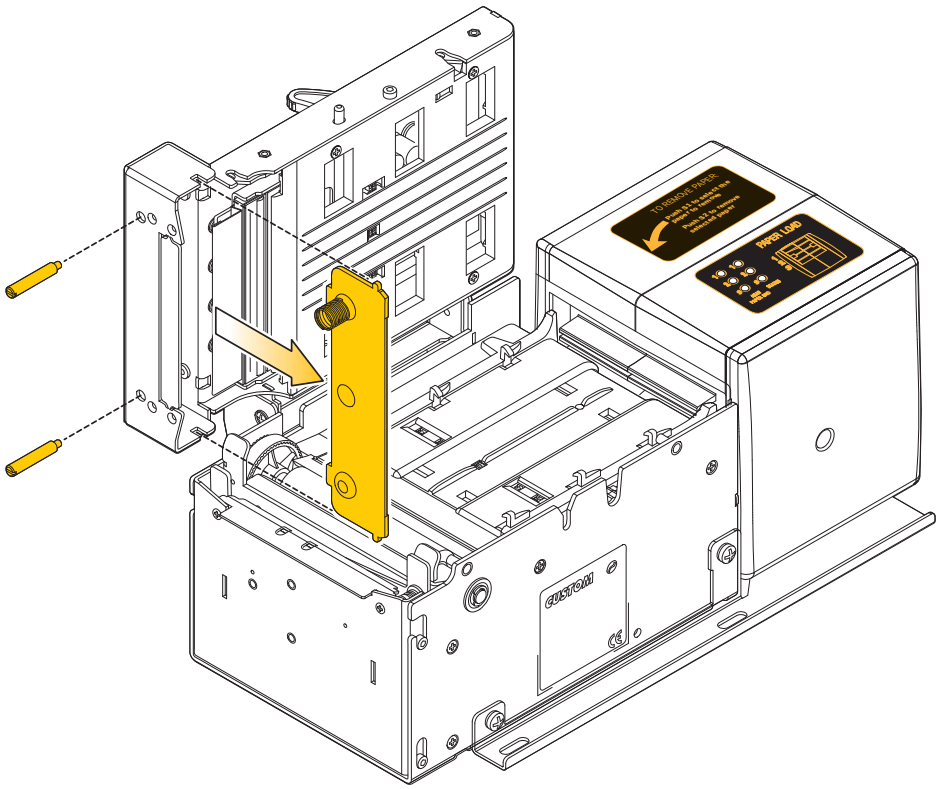
(Fig.1.18)

- Unscrew the two fixing screws and take off the upper paper mouth group of the “STANDARD” configuration (see fig.1.19).
- Unscrew the central fixing screw and divide the paper mouth of the “STANDARD” configuration from the light guide (see fig.1.19).
- Unscrew the fixing pins and take off the fixed blade and the spring as shown in fig.1.20.
- Fix the light guide with the upper paper mouth of the “BURSTER” configuration using the screw previously removed (see fig.1.21).
- Fix the upper paper mouth group for the “BURSTER” configuration using the screws previously removed (see fig.1.22).



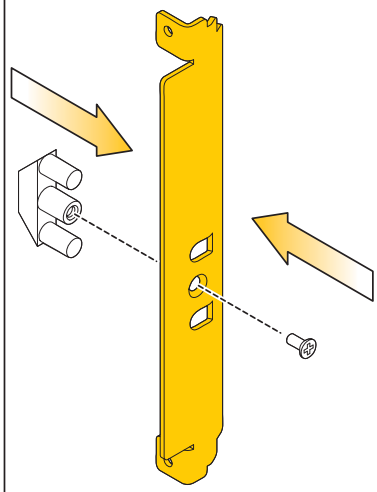
(Fig.1.19)

4



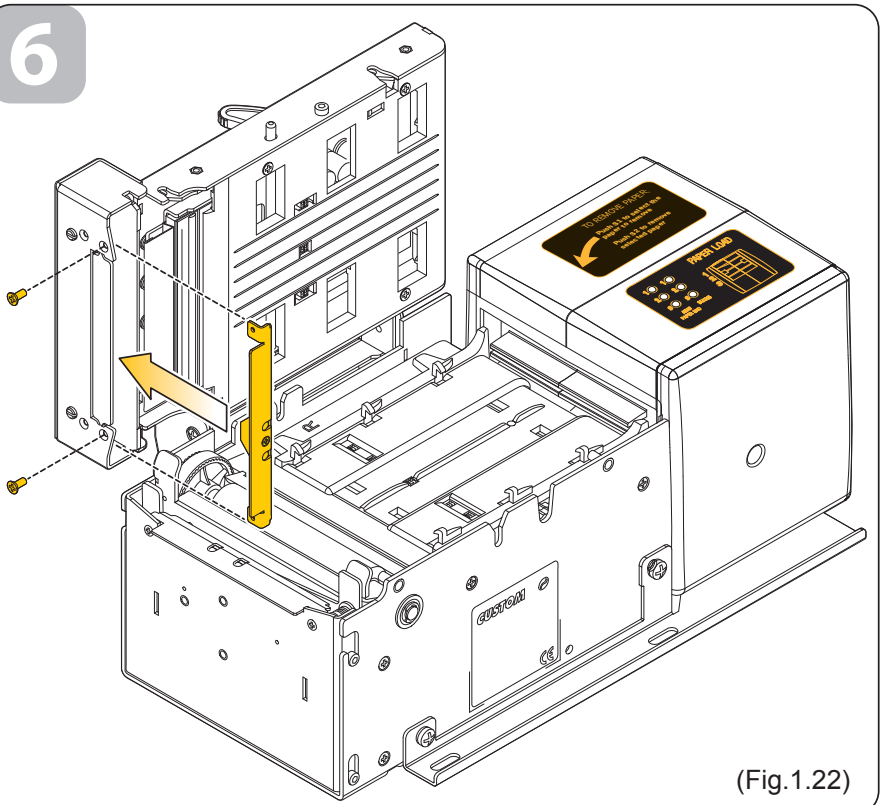
(Fig.1.20)

5



(Fig.1.21)

6

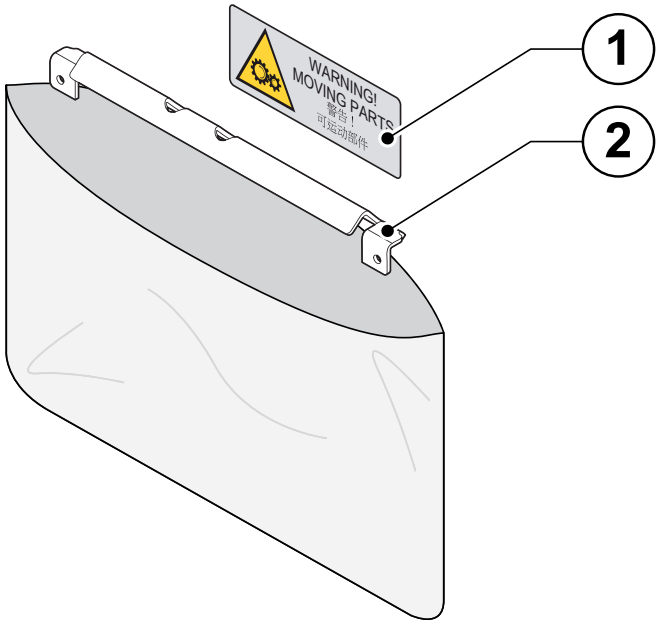


(Fig.1.22)

1.7.3 “CUT AND DROP” configuration

Printer is provided with a kit for the “CUT AND DROP” configuration. The kit contains (see fig.1.23):

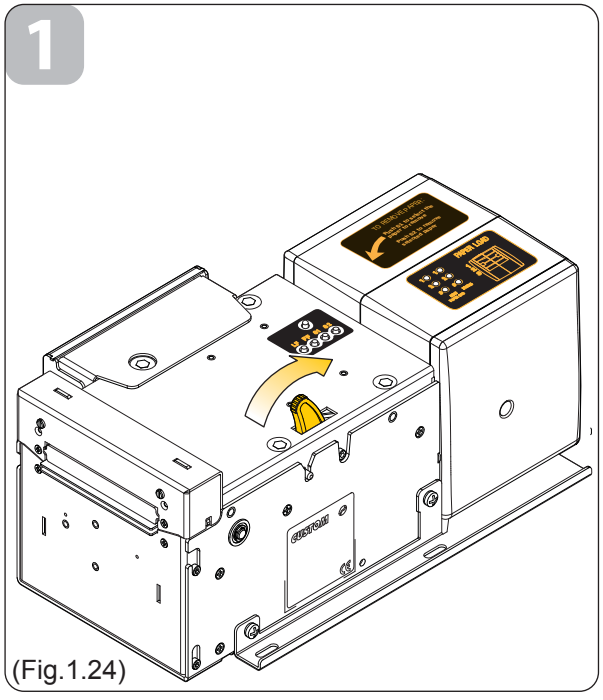
1. Label.
2. Upper paper outfeed mouth.



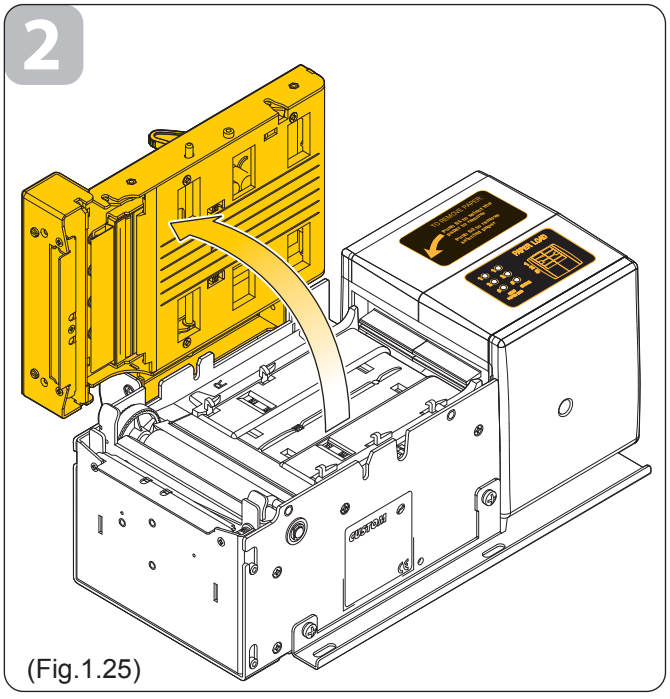
(Fig.1.23)

Assembly instruction

- Open the printer cover as shown in fig.1.24 and fig.1.25.

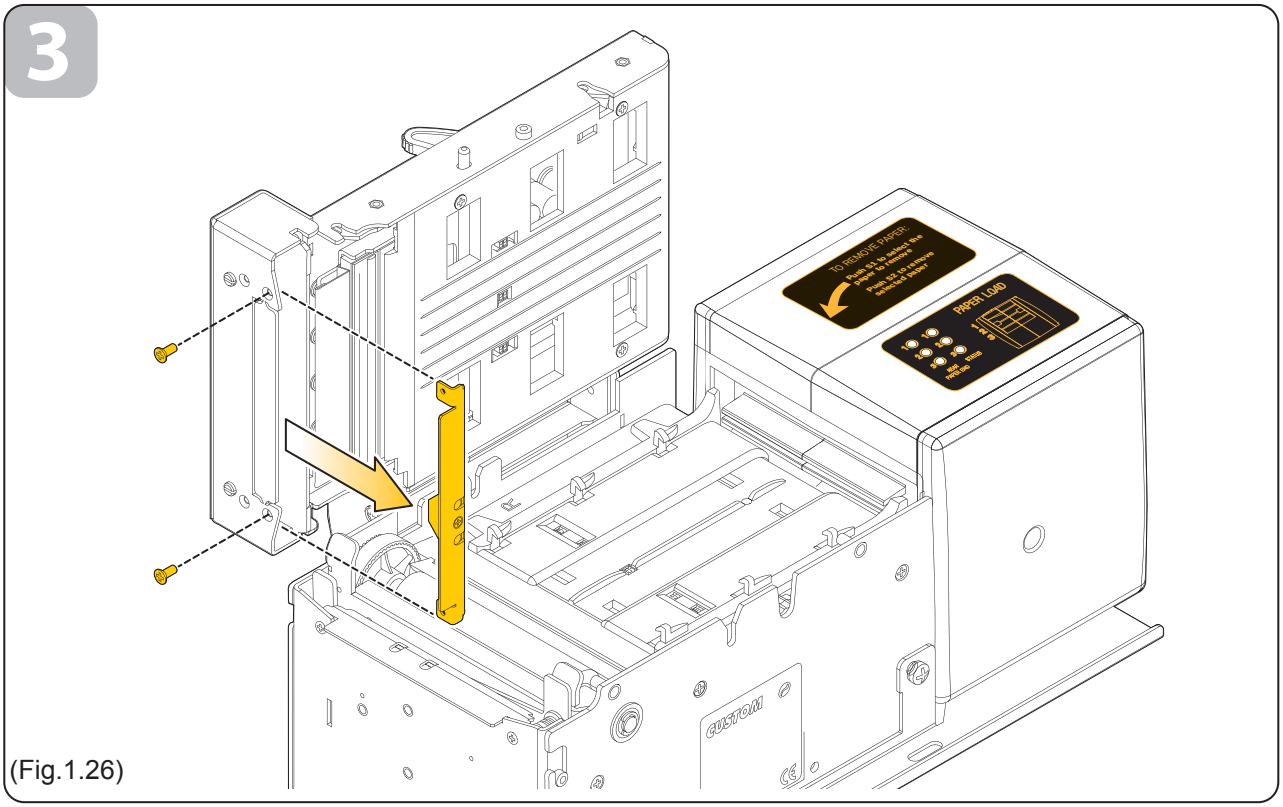


(Fig.1.24)

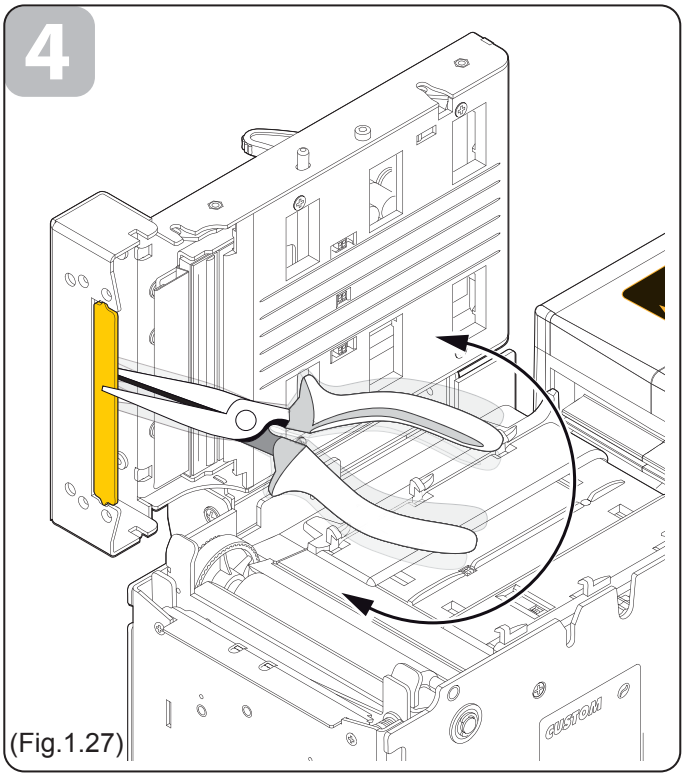


(Fig.1.25)

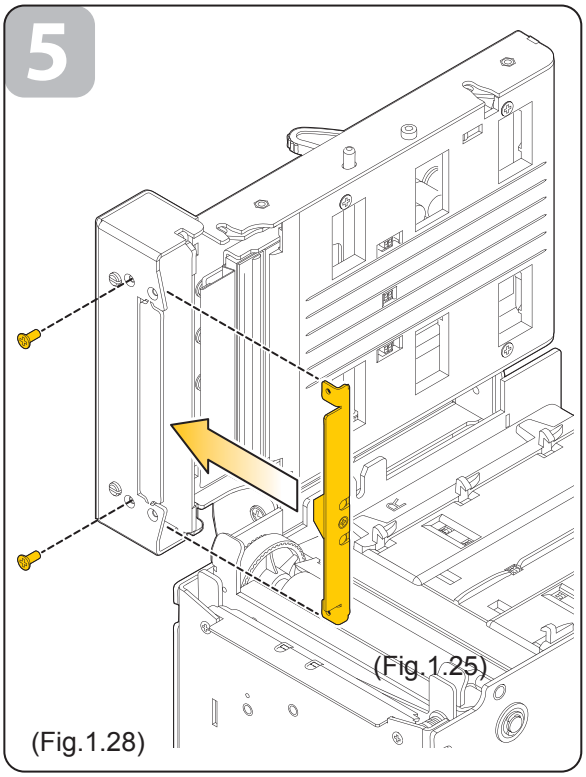
- Unscrew the two fixing screws and take off the upper paper mouth group of the “STANDARD” configuration (see fig.1.26).
- Using a clamp, remove the precut sheet metal on the printer cover (see fig.1.27).
- Fix the upper paper mouth group for the “STANDARD” configuration in the upper holes on the printer cover using the screws previously removed (see fig.1.28).



(Fig.1.26)



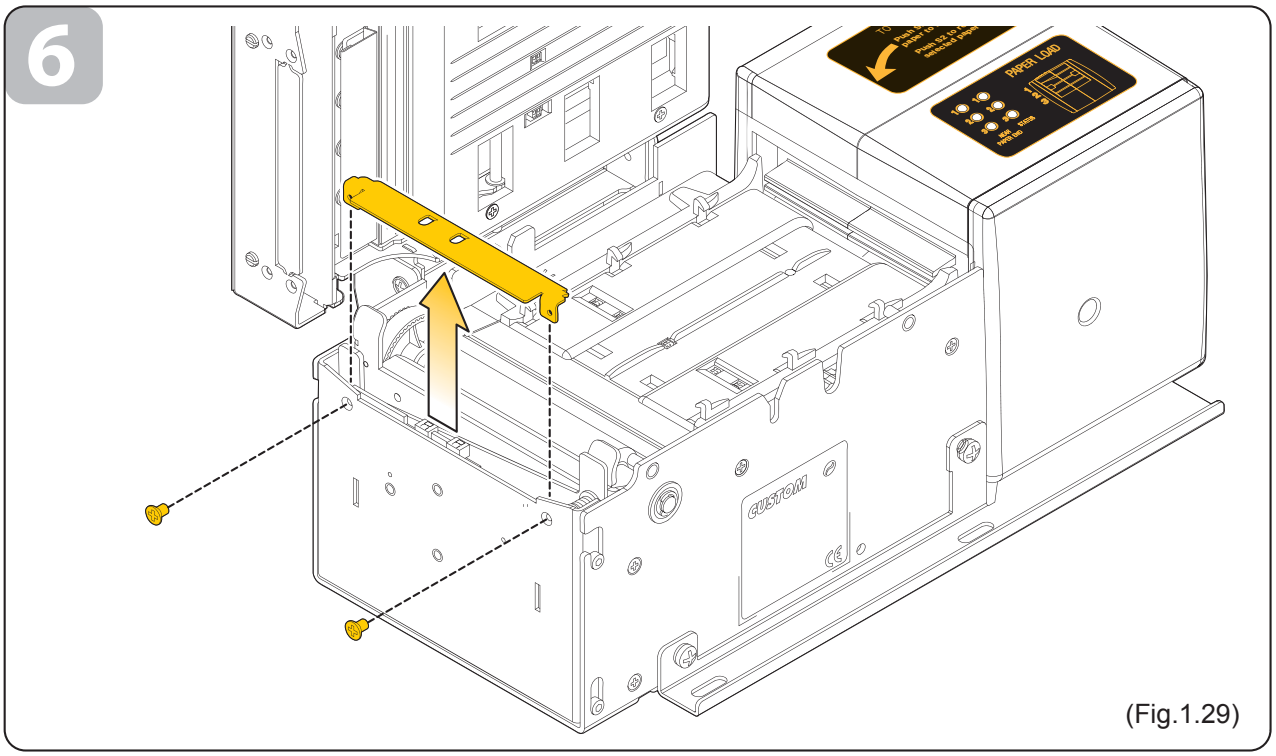
(Fig.1.27)



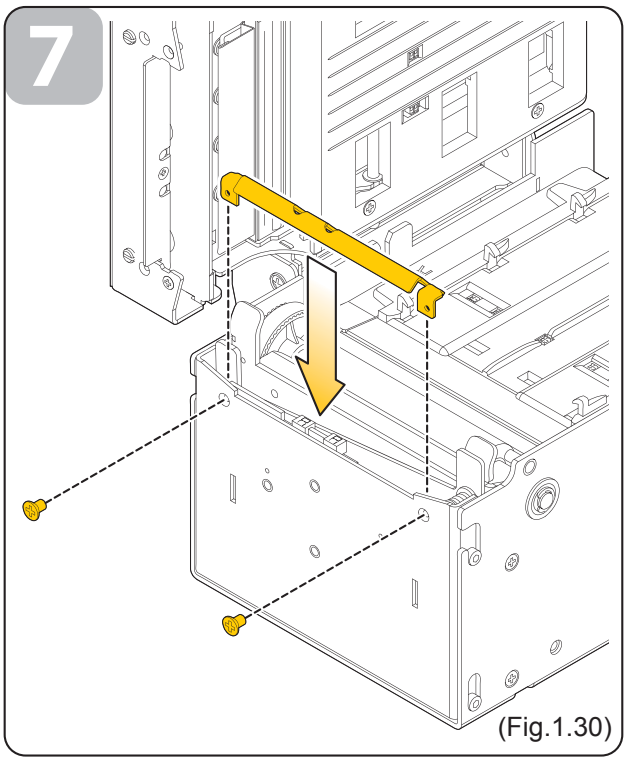
(Fig.1.25)

(Fig.1.28)

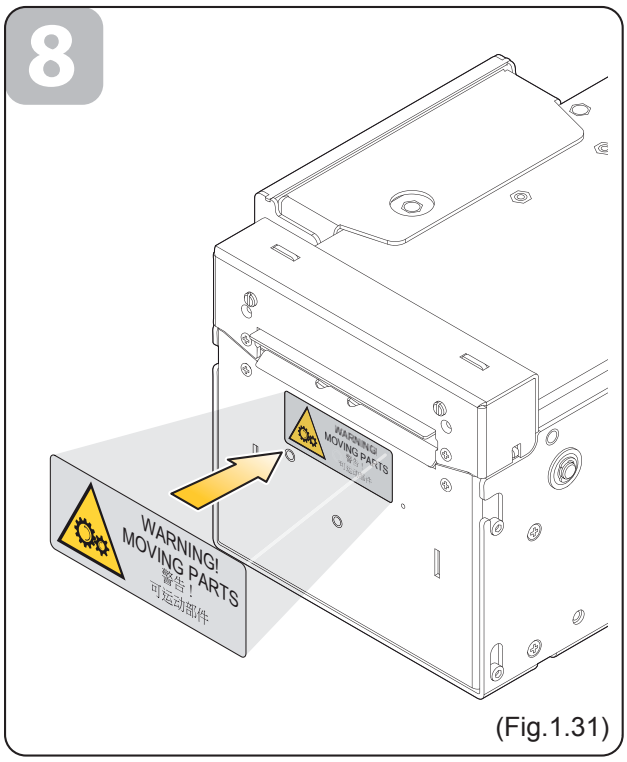
- Unscrew the two fixing screws on the cutter cover and take off the lower paper mouth of the “STANDARD” configuration (see fig.1.29).
- Fix the lower paper mouth for the “CUT AND DROP” configuration using the screws previously removed (see fig.1.30).
- Close the printer cover and paste the label on the cutter cover as shown in fig.1.31.



(Fig.1.29)



(Fig.1.30)



(Fig.1.31)

1.7.4 Paper jam

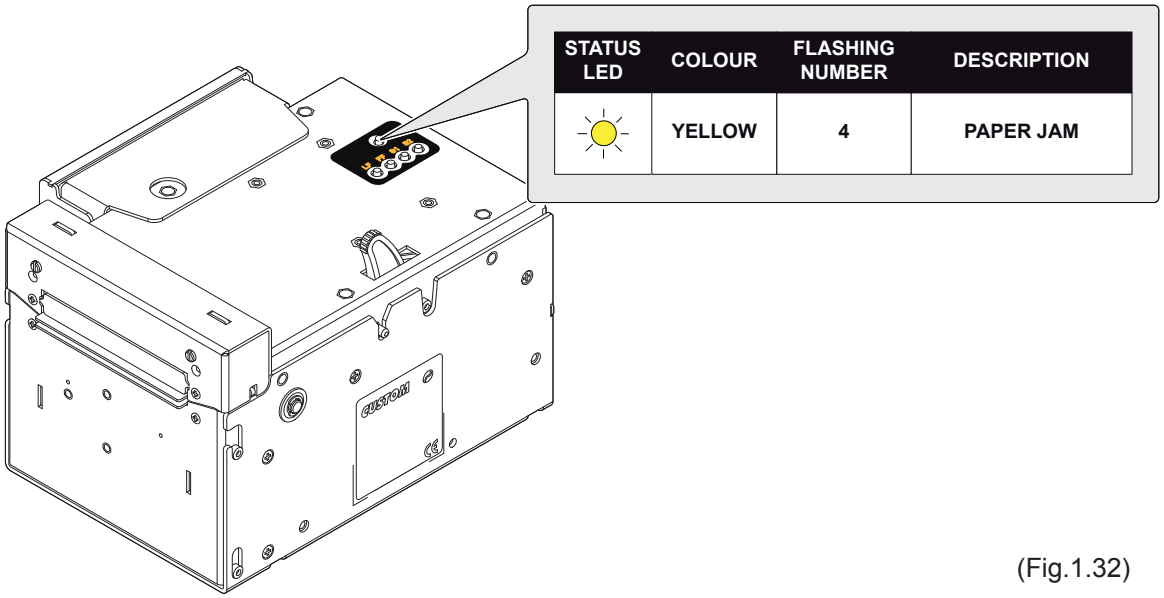
Paper jam inside the Triple Feeder Unit

WARNING:
In case of paper jam inside the triple feeder unit:
- Do not carry out technical operations inside the triple feeder.
- Contact Customer Service

Paper jam inside the printer

NOTE: All figures reported in this paragraph, relative to paper jam inside the printer, are related to the operations that will be made only on the printer so the triple feeder unit is not reported in these figures.

When occurs a paper jam the “status LED” signals the corresponding printer status as follows:

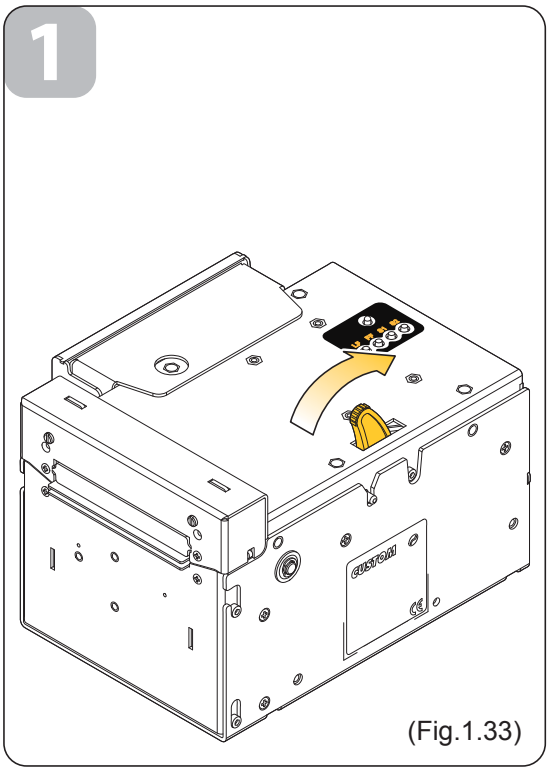


STATUS LED	COLOUR	FLASHING NUMBER	DESCRIPTION
	YELLOW	4	PAPER JAM

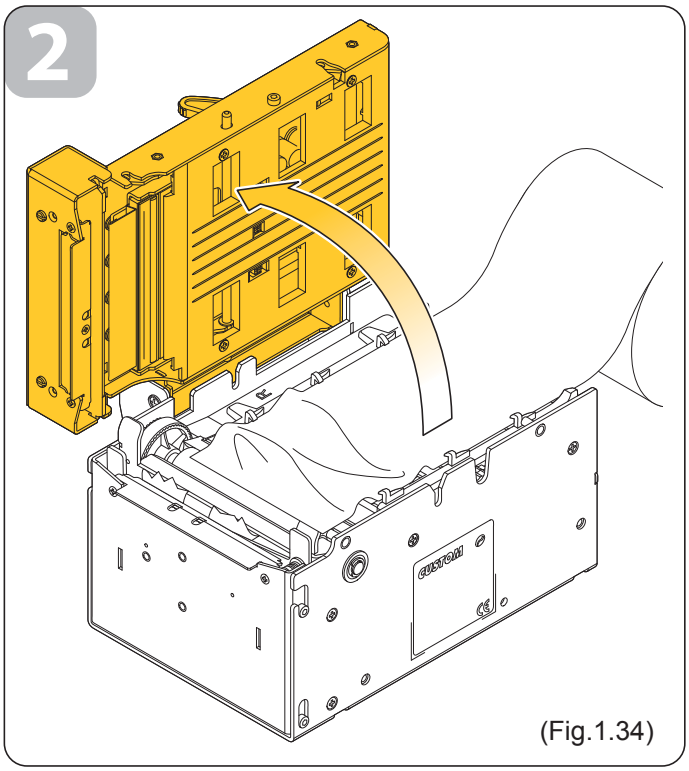
(Fig.1.32)

In case of paper jam proceed as follows:

- Open the printer cover (see fig.1.33 and fig.1.34).
- Unlock the cutter cover (see fig.1.35).
- Remove the damaged paper and check for scraps of paper in the printer and in that case remove it (see fig.1.36); carefully remove all scraps of paper from the cutter zone. If you have difficulty in doing so, use tweezers. DO NOT insert any kind of object inside the cutter.
- Lock the cutter cover (see fig.1.37).
- Change the paper roll and close the printer cover following instructions of par.1.7.1.

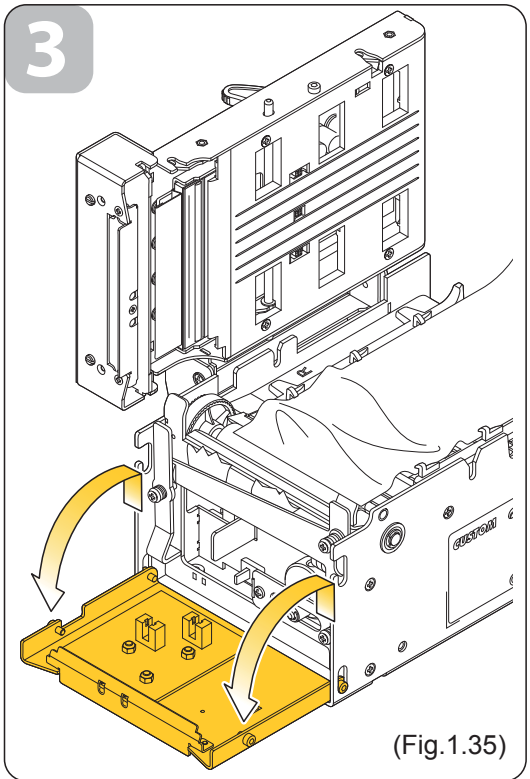


(Fig.1.33)



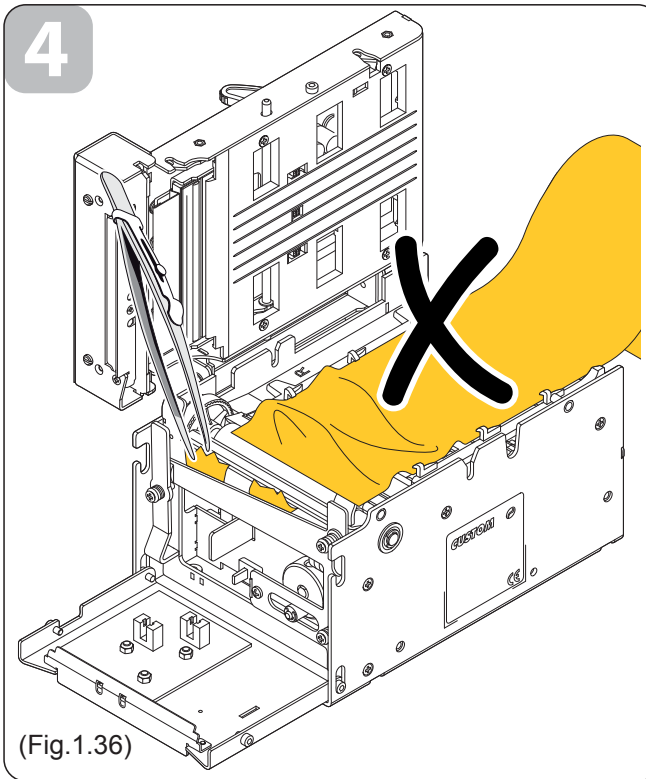
(Fig.1.34)

3



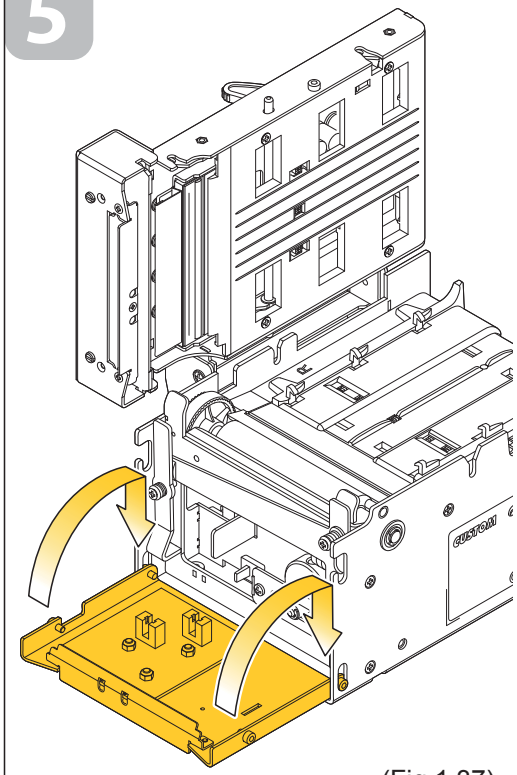
(Fig.1.35)

4



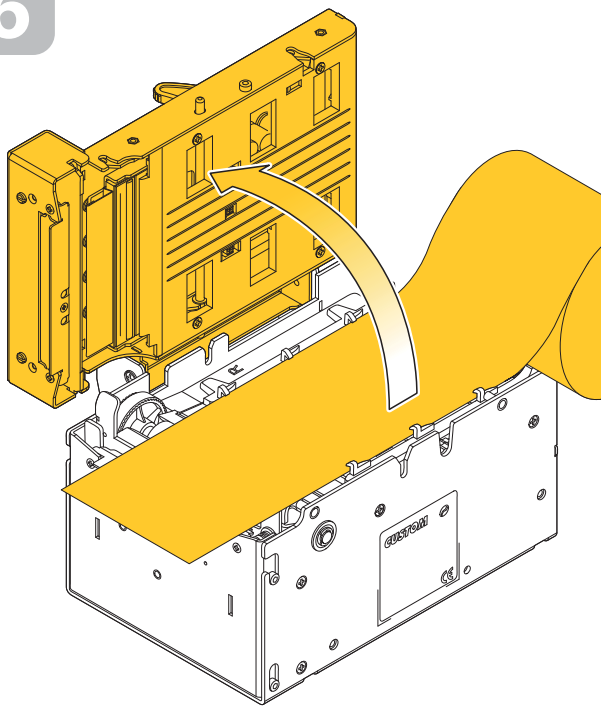
(Fig.1.36)

5



(Fig.1.37)

6

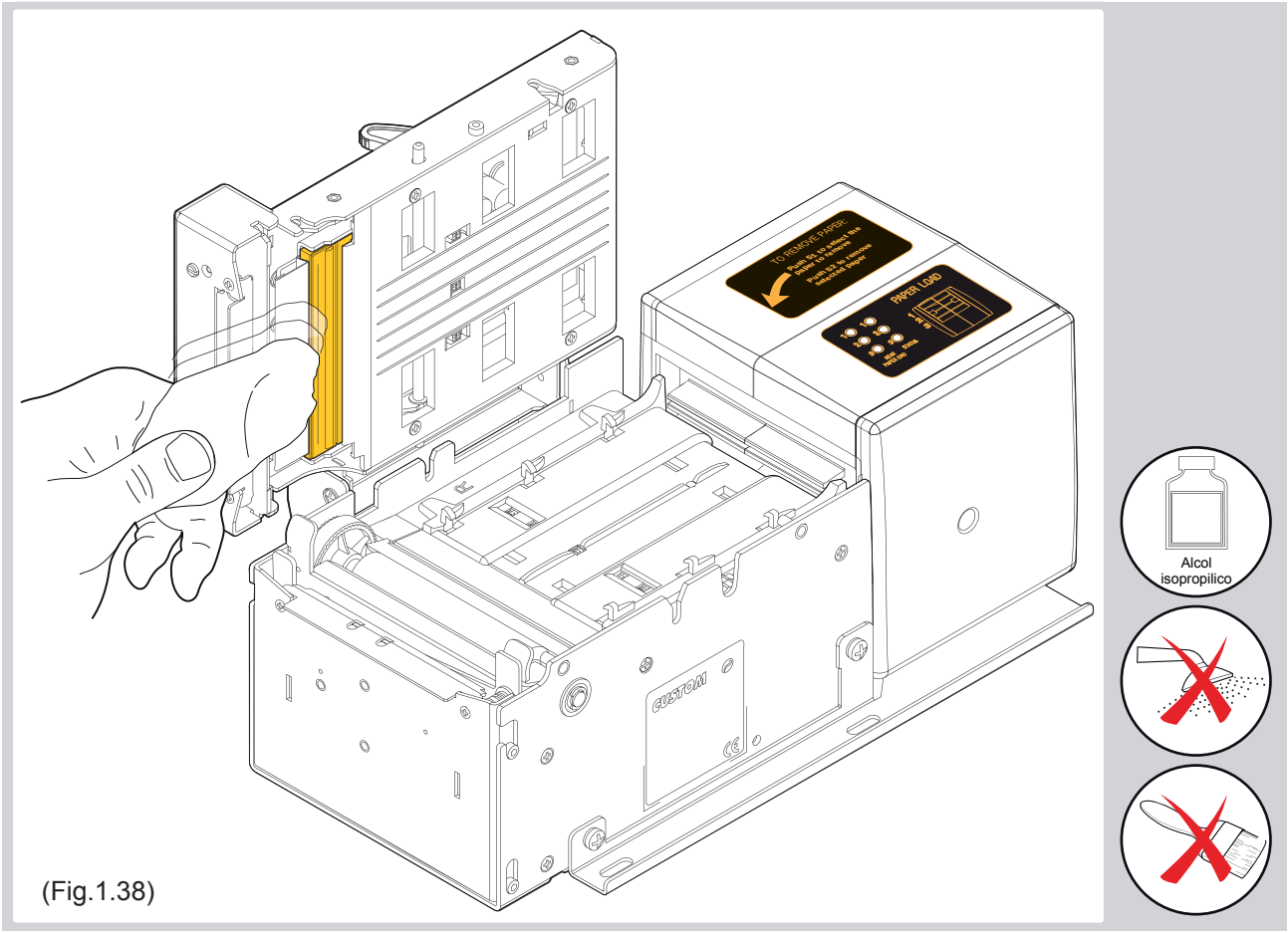


SEE PARAGRAPH 1.7.1

1.7.5 Cleaning the printing head

WARNING:
- Do not touch the head heating line with bare hands or metal objects.
- Do not perform any operation inside the printer immediately after printing because the head and motor tend to become very hot.

First disconnect the power supply and proceed as follows:
- Open the printer cover (see previous paragraphs).
- Clean the printing head heating line using a non-abrasive cloth moistened with isopropyl alcohol (see fig.1.38).

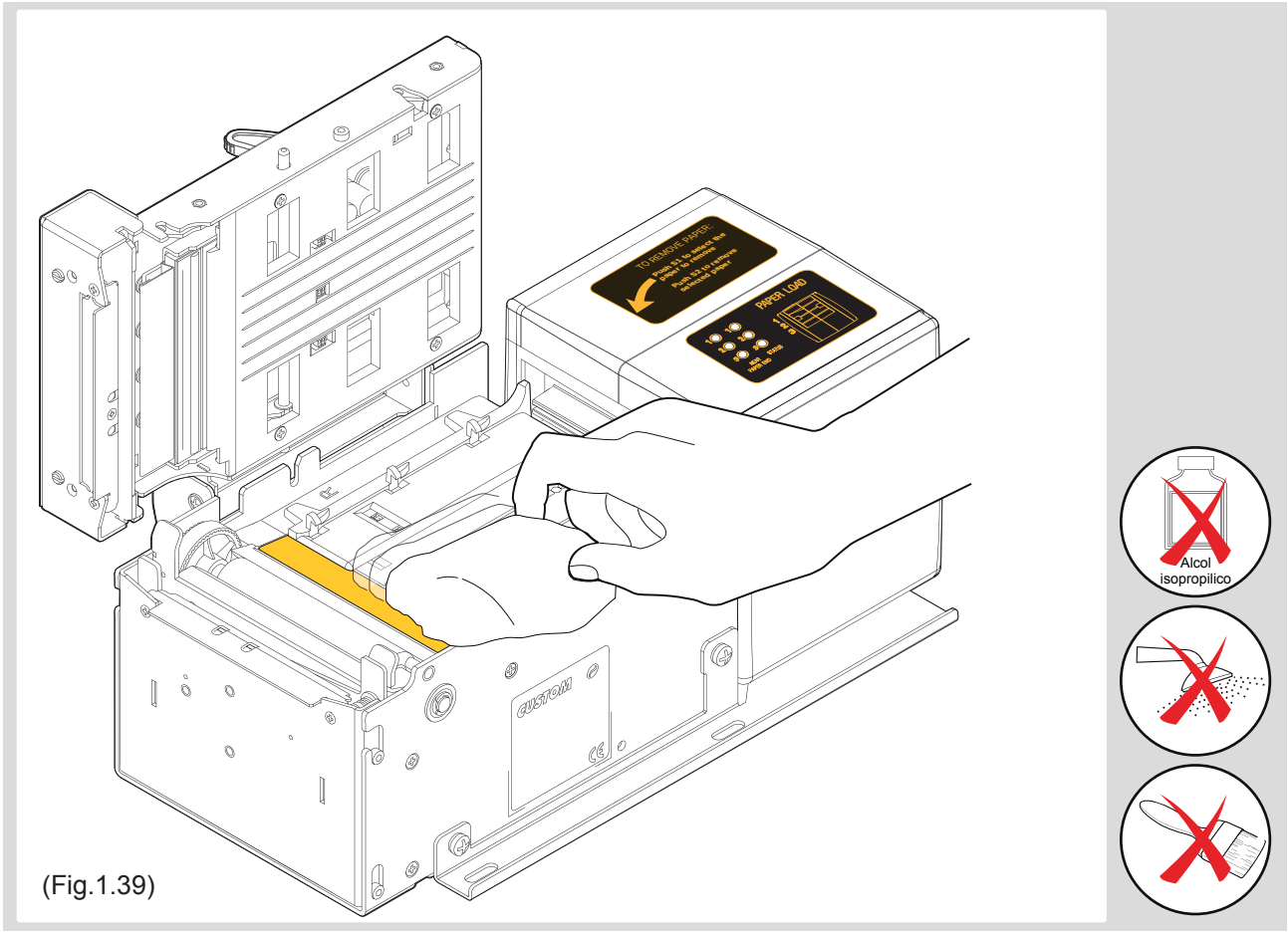


(Fig.1.38)

1.7.6 Cleaning the plastic window for barcode reading (only for printer models with barcode reader)

To clean the plastic window for barcode reading proceed as follows:

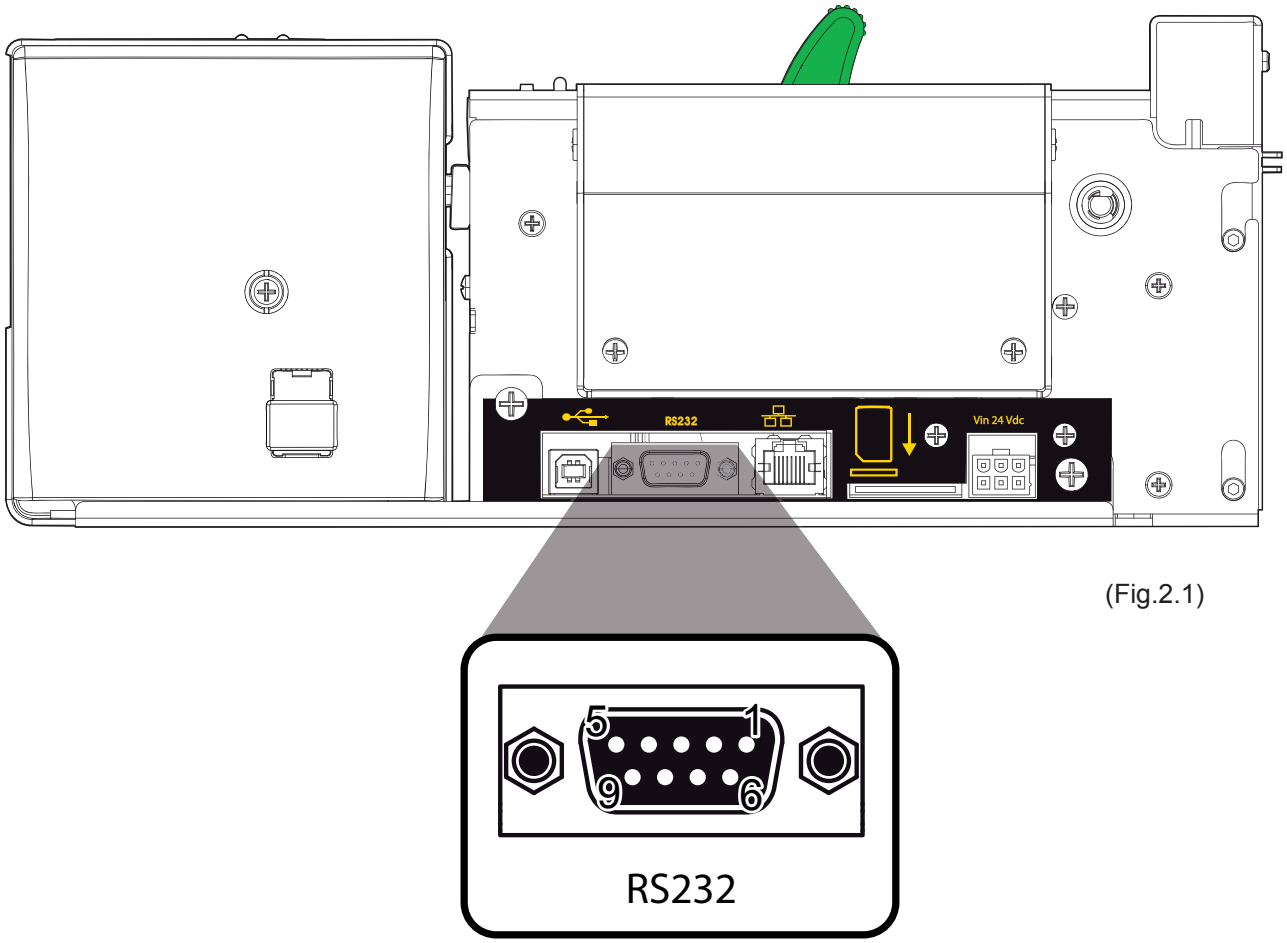
- Open the printer cover (see previous paragraphs).
- Wipe with a soft cloth to avoid scratching its surface. Do not use alcohol, solvents, or hard brushes (see fig.1.39).



(Fig.1.39)

2.1 RS232 SERIAL

The printer has an RS232 serial interface and is connected by means of a 9 pin female connector (see fig. 2.1).



(Fig.2.1)

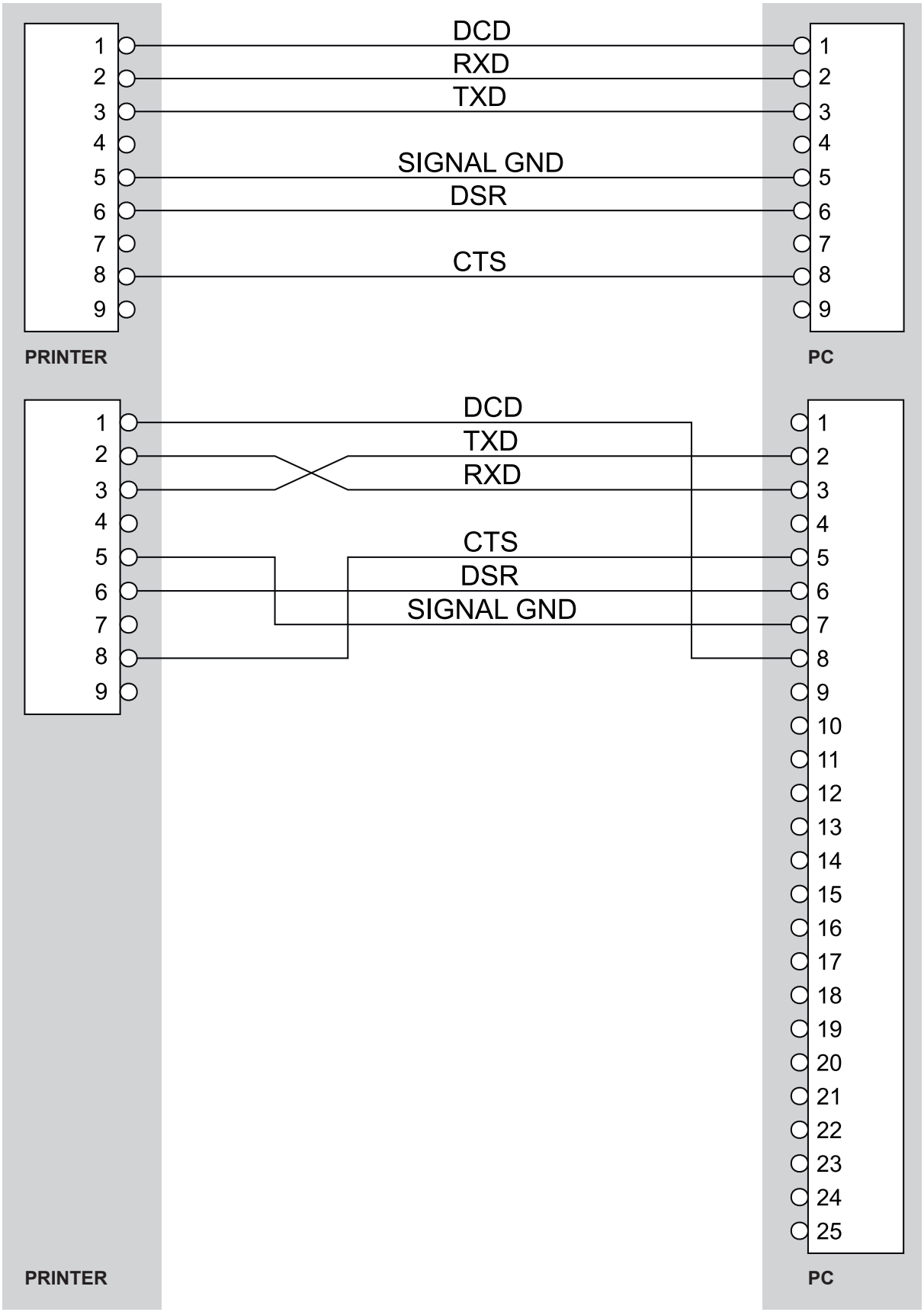
In the following table, the signals present on the connector are listed:

(Tab.2.1)

PIN	SIGNAL	IN/OUT	DESCRIPTION
1	DCD	OUT	Data Carrier detect. Printer ON (active at level RS232 high).
2	TXD	OUT	Receive data. Serial output (from Host).
3	RXD	IN	Transmit data. Serial data input (towards Host).
4	N.C.	-	Not connected.
5	GND	-	Ground signal.
6	DSR	OUT	Data Set Ready. Printer on and operating (active at RS232 level high).
7	N.C.	-	Not connected.
8	RTS	OUT	Clear to send. Ready to receive data (active at RS232 high level).
9	N.C.	-	Not connected

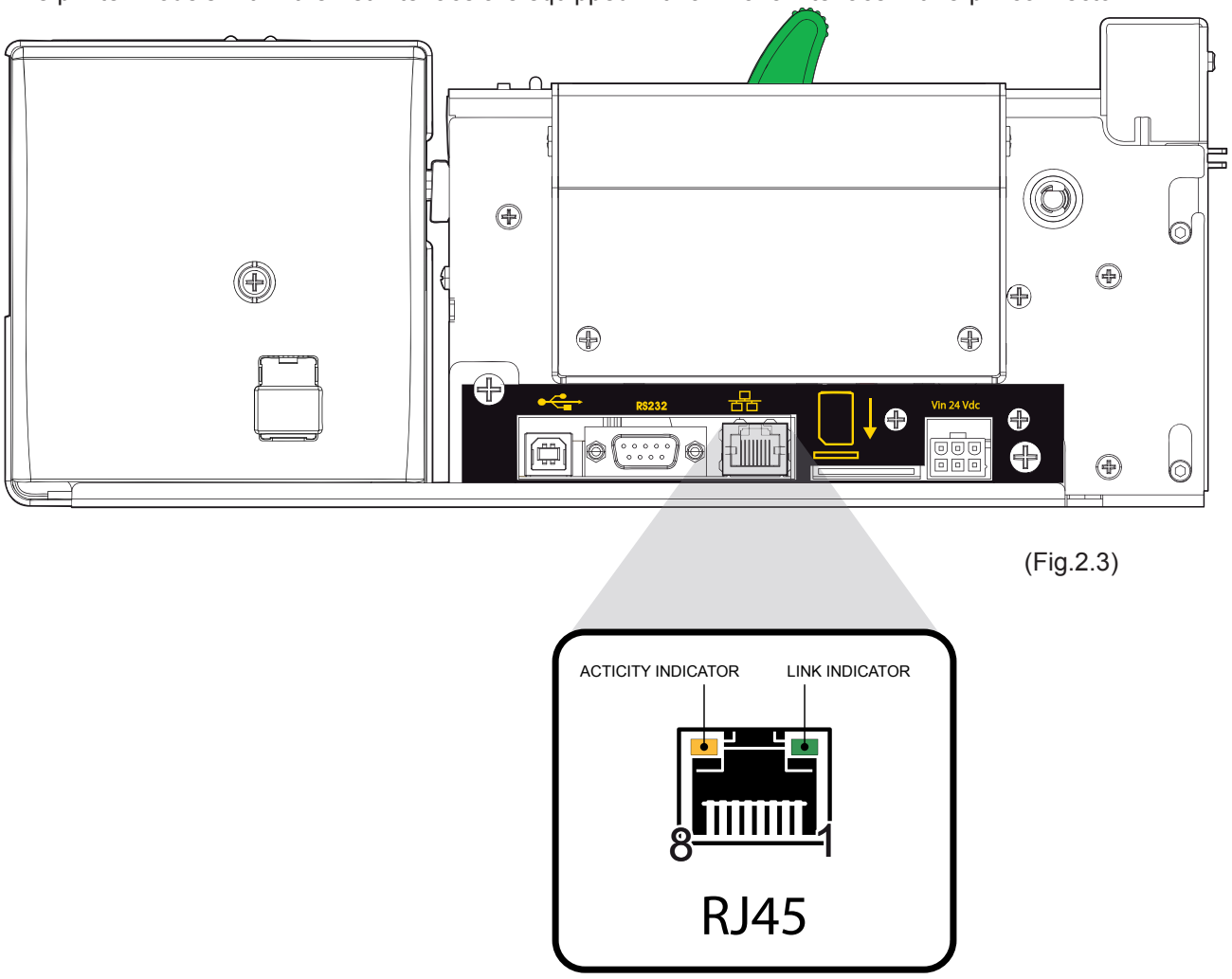
The following diagrams show examples of connections between the printer and the Personal Computer using 25 and 9 pin female connectors.

(Fig.2.2)



2.2 ETHERNET INTERFACE (optional)

The printer models with Ethernet interface are equipped with an RJ45 interface with 8-pin connector.



(Fig.2.3)

Refer to the table below for the connector pin signals:

(Tab.2.2)

PIN	SIGNAL	DESCRIPTION
1	ETX+	ETX+
2	ETX-	ETX-
3	ERX+	ERX+
4	N.C.	Not connected
5	N.C.	Not connected
6	ERX-	ERX-
7	N.C.	Not connected
8	N.C.	Not connected

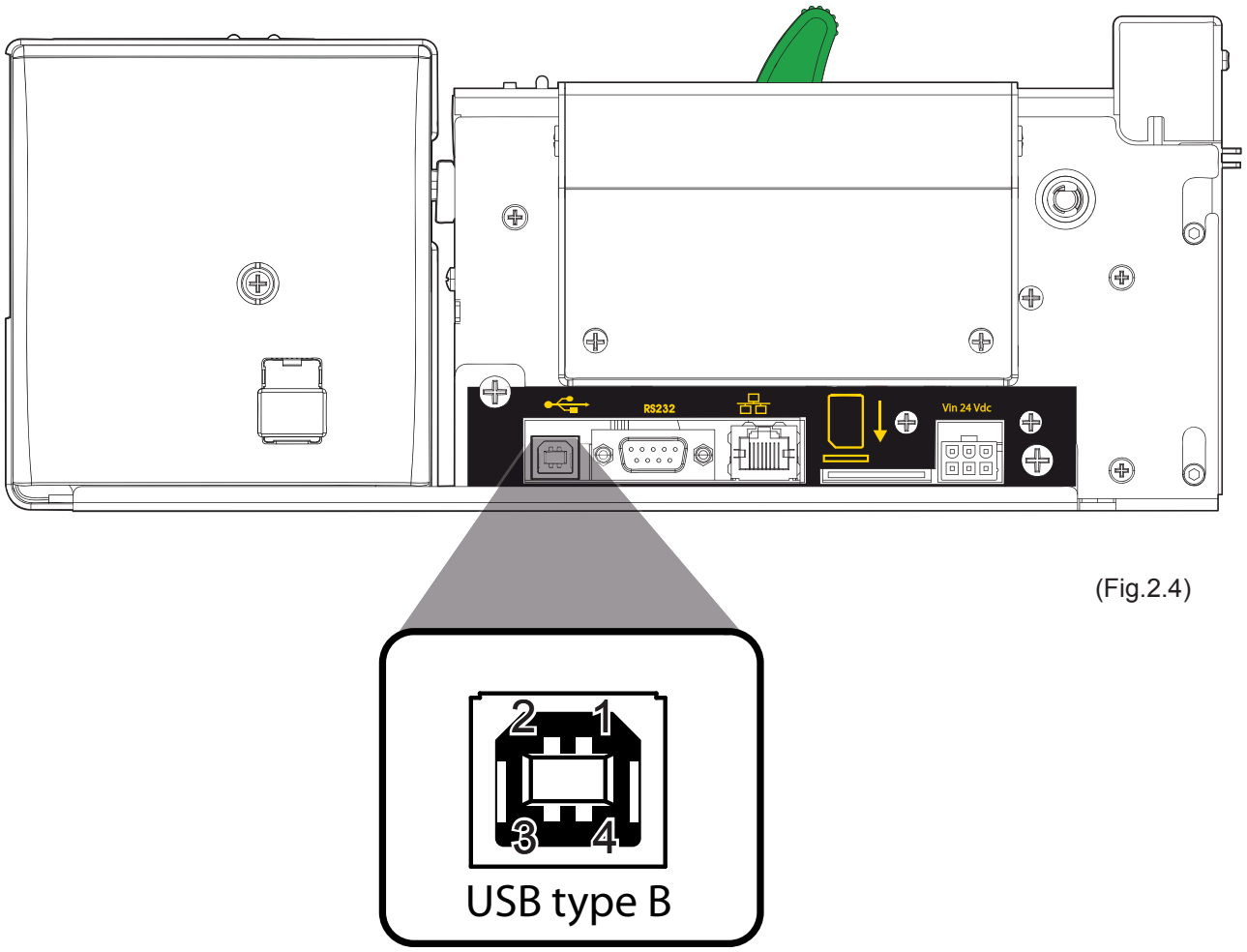
NOTE: The functionality of two leds, Sx e Dx, are specified in the following table:

LED	HW version 2.00 or later
Sx	Link (yellow color): the led light on when a connection is active
Dx	Rx/Tx (green color): the led light on when occurs a data reception or transmission

NOTE : Please note that, use the cross-cover cable when you directy connect the printer to a PC.

NOTE : To connect the printer to a hub device use an UTP Ethernet cable (Pin to Pin).

2.3 USB INTERFACE



(Fig.2.4)

Printers with USB serial interface conform to USB 1.1 standards and have the following specifications:

- Communication speed 12 Mbit/sec
- “Receptacle series B” - type connector.

Refer to the table below for the connector pin signals and connection to a device:

PIN	SIGNAL	DESCRIPTION
1	VBUS	N.C.
2	D-	Data -
3	D+	Data +
4	GND	Ground signal
Shell	Shield	Cable shield

(Tab.2.3)

3.1 TECHNICAL SPECIFICATIONS

Table 3.1 gives the main technical specifications for the printer model.

(Tab.3.1)

Standard interfaces	USB	RS232	ETHERNET(1)
Communication speed	12 Mbit/sec	from 1200 to 115200 bps	10 Mbit/sec (1)
Resolution	203 DPI (8 dot/mm)		
Paper specifications			
Type of paper	Thermal rolls Heat-sensitive side on outside of roll Fan Fold thermal paper with notch		
Paper roll size	54mm, 82.5mm		
Recommended types of paper	from 100 g/m^2 to 250 g/m^2		
External roll diameter	max Ø300 mm (2)		
Internal roll core diameter	25mm (+1mm)		
Core thickness	2mm (+1mm)		
Paper end	Not attached to roll core		
Core type	Cardboard or plastic		
Sensors	Ticket presence, head temperature, ticket presence on output, black mark detector in 6 positions and translucent gap/hole mark detector (setting by software), cover open, cutter compartment open, external near paper end.		
Printing method	Thermal, fixed head (8 dot/mm)		
Printing mode	Normal, 90°, 180°, 270°		
Printing format	Height/Width from 1 to 8, bold, reverse, underlined, italic		
Character fonts	ESC/POS™ emulation: PC437, PC850, PC860, PC863, PC865, PC858 (euro), 2 TrueType fonts (3) SVELTA emulation : 20 embedded fonts, 2 TrueType fonts (3)		
Receive buffer	64 Kbytes		
Flash memory	16 Mbytes		
Graphic memory	Logos dynamic management (max 2MB graphics memory)		
Memory Card SD/MMC (4)	Capacity =	max 2 Gbytes	
Printing speed	High quality Normal High speed	120 mm/sec 200 mm/sec 250 mm/sec	
Head life	150 Km / 100M pulses		
MCBF	3 000 000 cutter number		
MTBF (5)	666 000 hours		
Mechanical Characteristics			
Dimensions (6) (7)	Length [mm] = Height [mm] = Width [mm] =	303 123 *(with cover closed)* 182	
Weight (6) (7)	5200 gr.		

Power supply	24 Vdc ± 10%		
Electrical input			
Stand-by	0.2 A		
Average (8)	1.0 A		
Environmental conditions			
Operating temperature	0°C - 50°C		
Relative humidity	10% - 85% w/o condensation		
Storage temperature / Humidity	-20°C - +70°C / 10% - 90%		
Emulation	ESC/POS™, SVELTA		
EMULATION ESC/POS™			
Character density	**11 cpi**	**15 cpi**	**20 cpi**
Number of columns	35	45	64
Chars / sec	2900	3800	5300
Lines / sec	83	83	83
Characters (L x H mm)			
Normal	2,25x3	1,75 x 3	1,25 x 3
Character set	3		

NOTE: (1) Only for printer models equipped with Ethernet interface.
(2) For external rolls diameter higher to Ø100mm it's recommended to use a paper pretensioning device.
(3) "Veramono.ttf" and "Mono.ttf" are installed on printer flash disk. It is possible to install additional TrueType fonts (see par.C.7).
(4) Only for printer models equipped with SD/MMC.
(5) Electronic board.
(6) Referred to model without paper holder support.
(7) Referred to model in the STANDARD configuration.
(8) Referred to a standard CUSTOM receipt (L=10cm, Density = 12,5% dots on).

Table 3.2 gives the main technical specifications of the barcode reader present in the printer models that will be provided.

(Tab.3.2)

Barcode reader model	MR008	CX002
Electrical Characteristics		
Scan rate	270 scans/sec	200 scans/sec
Optical Characteristics		
Sensors	Linear CCD Sensor	
Light source	Red Leds, 630 nm	
Ambient light (Fluorescent lamp)	1500 LUX MAX	3000 LUX MAX
Performance		
Resolution	5 mil. (0.127 mm)	
Readable Barcode	ALL UPC/EAN/JAN, Code 39, Code 39 Full ASCII, Code 128, Code 93, Interleave 25, Industrial 25, Matrix 25, China Postage, CODABAR/NW7, Code 11, MSI/PLESSEY, Code 32, PDF417, DATAMATRIX	

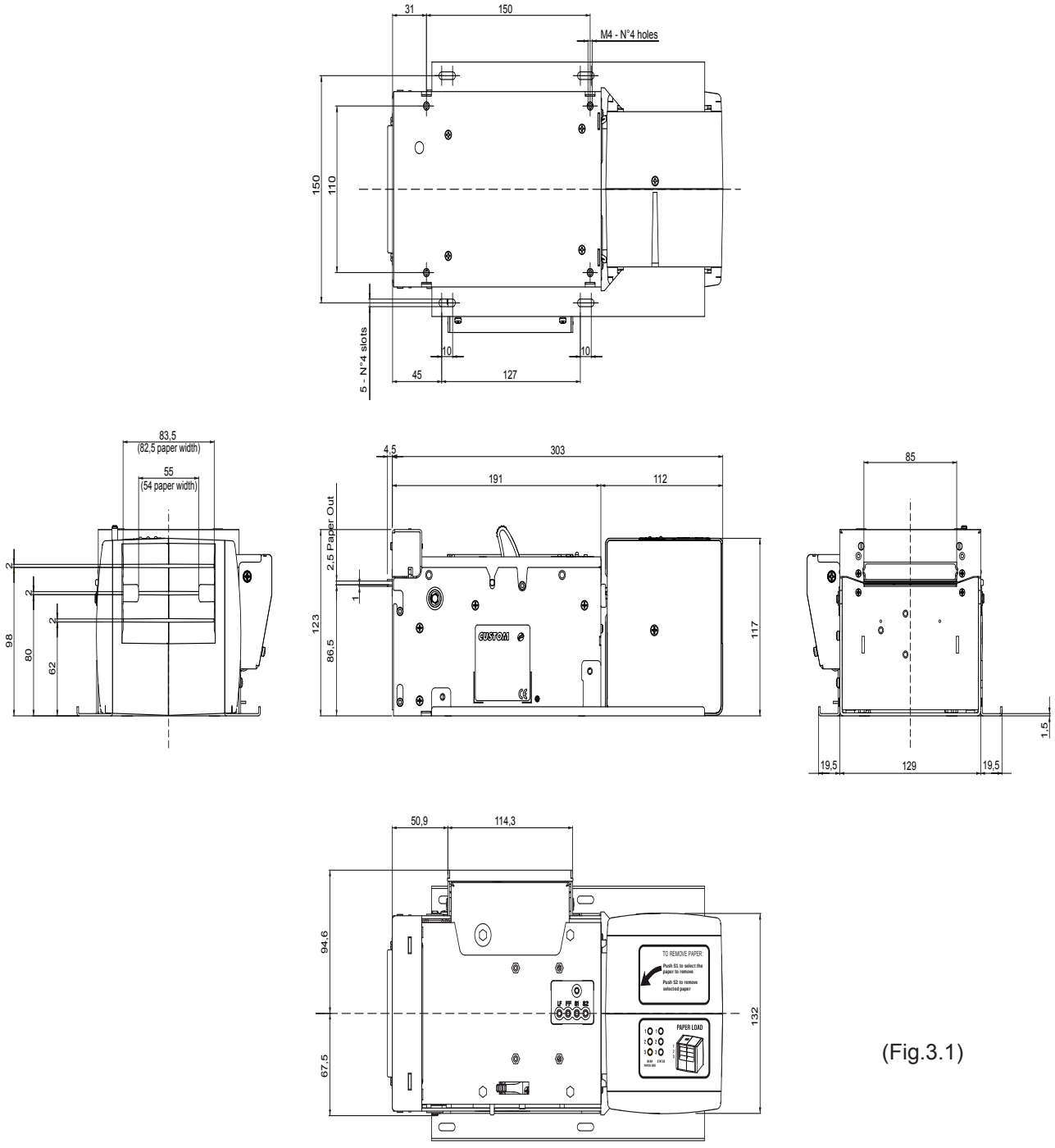
Table 3.3 gives the transponder specifications for the printer model with RFID Reader/writer (mifare/icode).

(Tab.3.3)

Supported transponders	ISO159693 (icode)
	ISO1443-MIFARE® (MIFARE Ultralight, MIFARE 1K, MIFARE 4K)

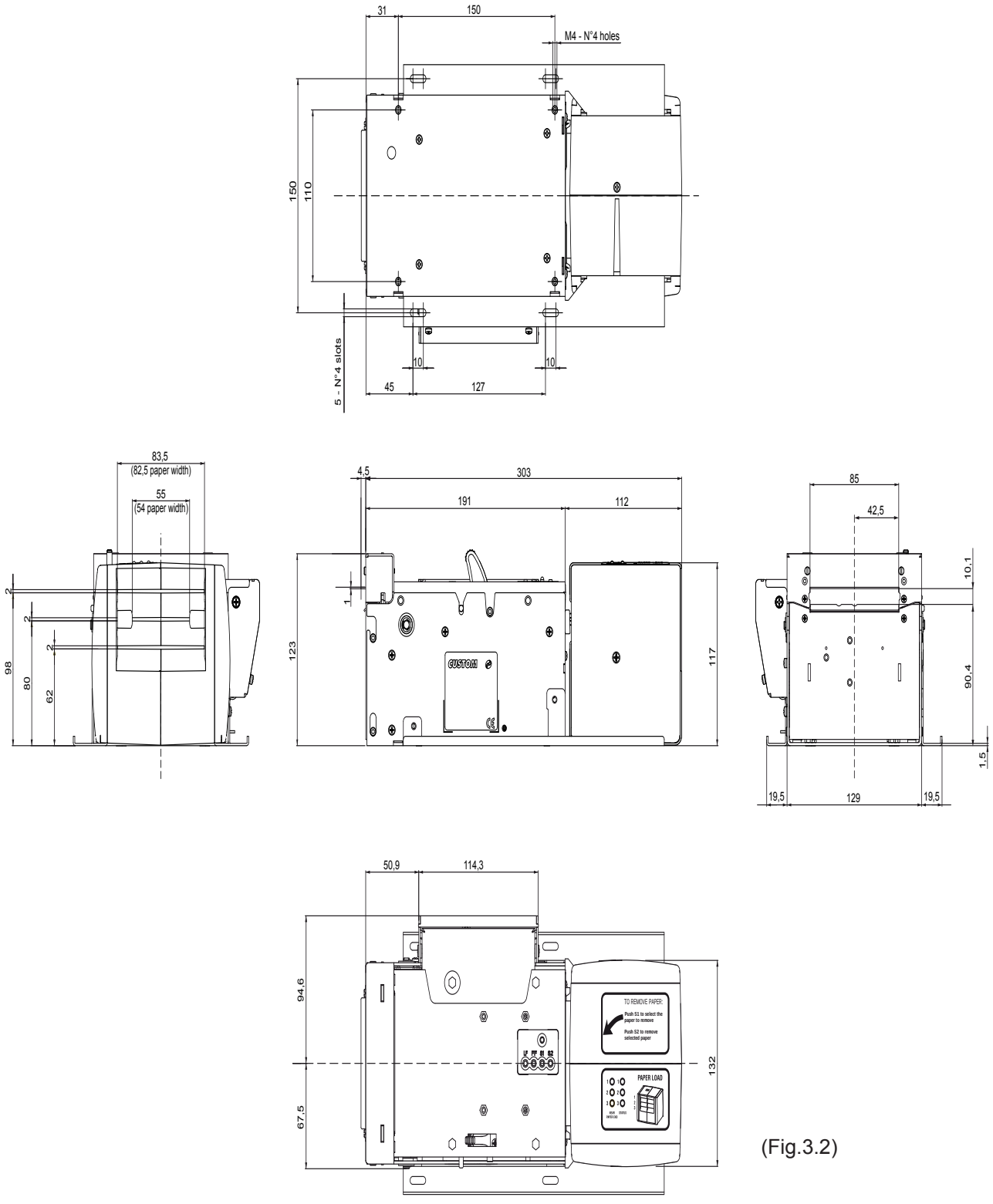
3.2 DIMENSIONS

In the following figures shows the dimensions of the printer.



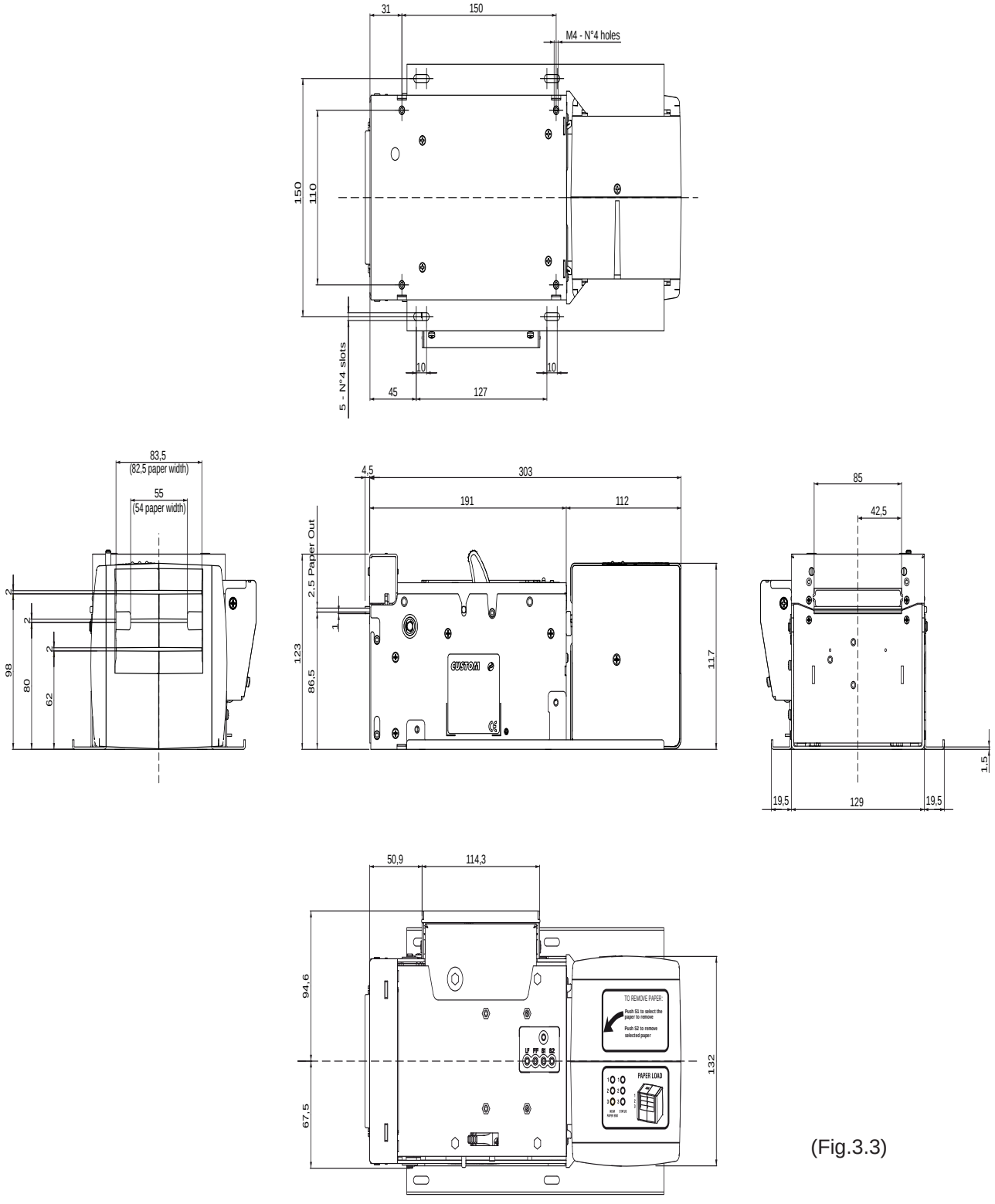
(Fig.3.1)

The figure 3.2 shows the dimensions of the printer with the “CUT AND DROP” configuration.



(Fig.3.2)

The figure 3.3 shows the dimensions of the printer with the “BURSTER” configuration.



(Fig.3.3)

Blank page

4.1 CHARACTER SETS IN ESC/POS™ EMULATION

The printer has 3 embedded fonts of varying width (11, 15 and 20 cpi) which may be accessed through programming (section 1.2) or control characters (see Command Reference). Each of these fonts offers the following code tables: PC437, PC850, PC860, PC863, PC865, PC858.
Shown below in figures 4.1 are examples of the 11 cpi character set.

PC437
(Usa,Standard,Europe)

PC850
(Multilingual)

PC860
(Portuguese)

PC863
(Canadian-French)

PC865
(Nordic)

PC858
(Euro symbol)

(Fig.4.1)

To print the Euro (€) symbol, the command sequence is: $1B, $74, $13, $D5 (see Command Reference).

In ESC/POS™ emulation, it is possible to use TrueType fonts. To be used, a TrueType font must be mono-space type (every character of the font must have the same dimension). The check is made by the printer when the font is selected.
TrueType fonts will be automatically scaled by the printer in order to obtain the same available width for the embedded fonts (11, 15 and 20 cpi).

The quality of TrueType fonts and the correct positioning into the printable area will result from the font producers and the font implementation.

The available code tables are : PC437, PC850, PC860, PC863, PC865, PC858, PC866, PC852, WPC1252. For the correct printing of the code tables, it is necessary that the selected TrueType font contains all the characters in the tables. Otherwise, the '□' symbol will be printed instead the missing character.

All commands for printing configuration are usable both with TrueType fonts and with embedded fonts.
It is possible to address the TrueType font respects the UNICODE™ standard (see www.unicode.org), by using UTF-8 or UTF-16 encoding.

4.2 CHARACTER SETS IN SVELTA EMULATION

In SVELTA emulation the printer has 20 embedded fonts of varying width which may be accessed through control characters (see commands description in SVELTA emulation of Command Reference). The following list shows the font availables and relative dimensions in dot:

• Font HEL8PT8 (A)	Proportional Font with fixed height (H = 28 dot)
• Font HEL10PT8 (A)	Proportional Font with fixed height (H = 34 dot)
• Font HEL14PT8 (A)	Proportional Font with fixed height (H = 50 dot)
• Font HEL16PT8 (A)	Proportional Font with fixed height (H = 55 dot)
• Font 18x24	(Font 18x24 in ESC/POS emulation)
• Font 14x24	(Font 14x24 in ESC/POS emulation)
• Font 10x24	(Font 10x24 in ESC/POS emulation)
• Font 8x12 (B)	Fixed Font
• Font 8x12-2 (B)	Fixed Font
• Font 12x12 (B)	Fixed Font
• Font 14x11 (B)	Fixed Font
• Font 16x24 (B)	Fixed Font
• Font 16x24_1 (B) (C)	Fixed Font
• Font 16x24_2 (B) (C)	Fixed Font
• Font 20x15 (B)	Fixed Font
• Font 28x20 (B)	Fixed Font
• Font 14x24_1 (B) (C)	Fixed Font
• Font 16x24CN (B) (C)	Fixed Font
• Font OCRB (20x32) (B)	Fixed Font

For further informations to characters representations print directly the Font Test(D).

NOTE: (A) A proportional font is a font in which different characters have different pitches (widths).
(B) A fixed font is the opposite of a proportional font and is a fixed-pitch font.
(C) The fonts with the same name and dimension contain different characters in different positions from theirs.
(D) During power-up, if the FORM FEED (FF) key is held down, the printer executes the FONT TEST.

In SVELTA emulation, it is possible to use TrueType fonts. True Type fonts are printable with every angle of rotation and in bold, reverse, italic and underlined mode.

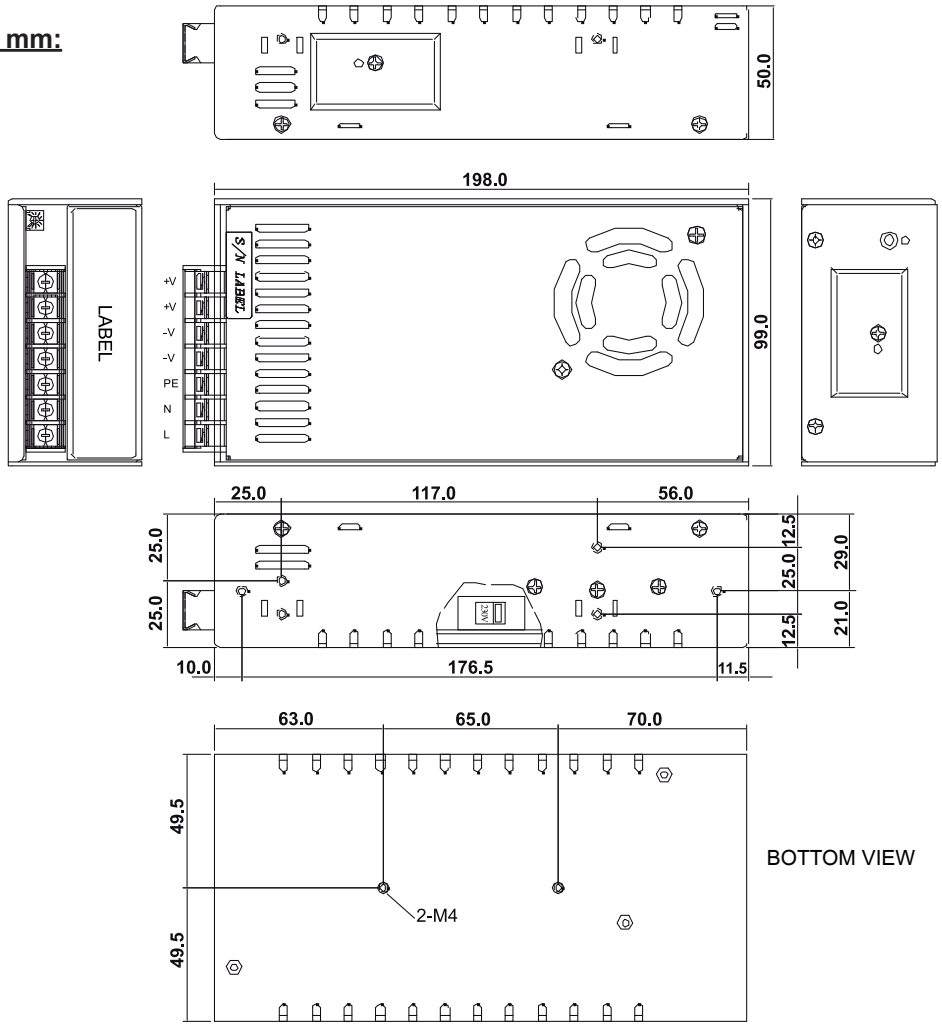
It is possible to address the TrueType font respects the UNICODE™ standard (see www.unicode.org), by using UTF-8 or UTF-16 encoding.
For the correct printing of the code tables, it is necessary that the selected TrueType font contains all the characters in the tables. Otherwise, the '□' symbol will be printed instead the missing character.

A.1 ACCESSORIES

A.1.1 Power Supply

The figure below illustrates the power supply provided by Custom to be used for printer operation.

Dimensions in mm:



(Fig.A.1)

BOTTOM VIEW

(Tab.A.1)

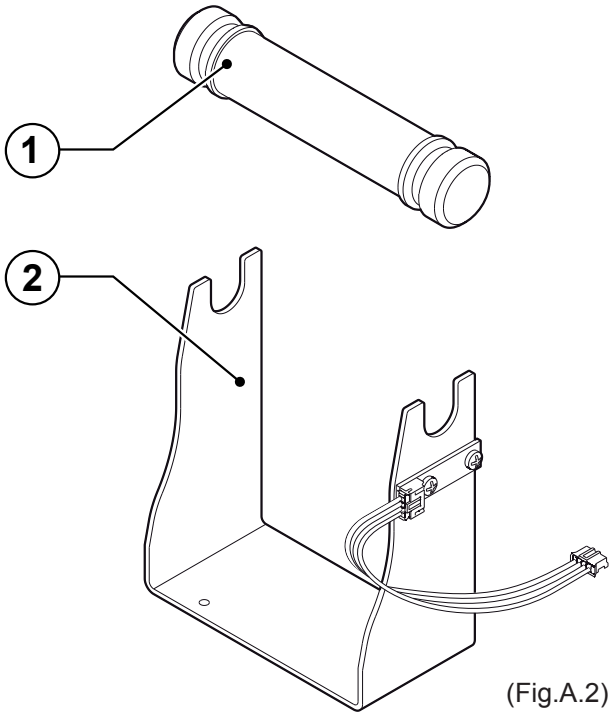
PPSPS-240-P24	Switching power supply 24V 240W	
Input specification	AC Input	115V ~ 5.0A
		230V ~ 2.5A
	Input frequency	47Hz ÷ 63Hz
Output specification	Output voltage	24V
	Output current	Max. 10A
	Efficiency	Typ. 83%
	Power	Max. 240W
Protection	Over Load	Over 105% ~ 180% of rating, recovers automatically after fault condition has been removed.
	Over Voltage	27.6 ~ 33.6V
	Short Circuit	Shutdown, recovers automatically after fault condition has been removed.
Environmental condition	Operating temperature	0°C ÷ 50°C
	Humidity	10% ÷ 85% Rh (w/o condensation)
	Storage temperature / Humidity	-20°C ÷ +75°C / 10% ÷ 95% (w/o condensation)

A.1.2 External paper roll holder

An external paper roll holder kit (see fig.A.2) is available for the printer to make it possible to use larger-width rolls of paper (Øext.150mm max).

PCXSP-KPM300	Paper roll holder kit with sensor

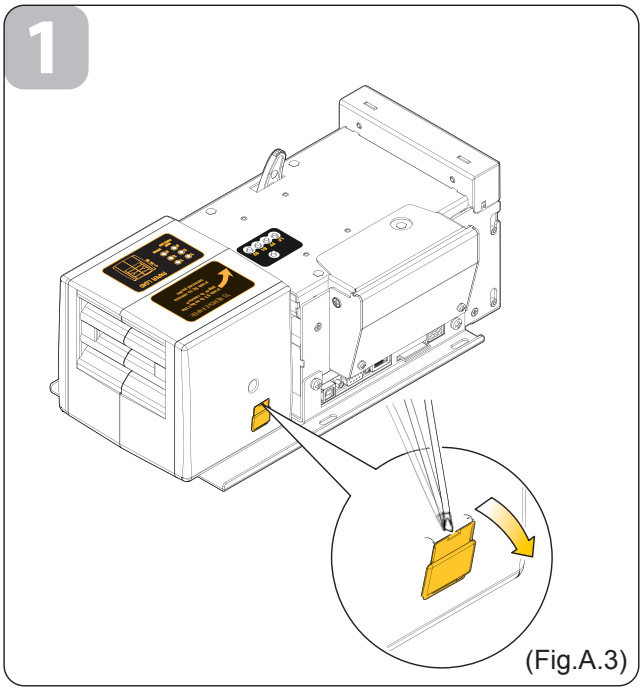
The kit includes (see fig. A.2):
- Paper roll pin (1);
- Paper holder support (2) with near paper end sensor.



(Fig.A.2)

Assembly instructions

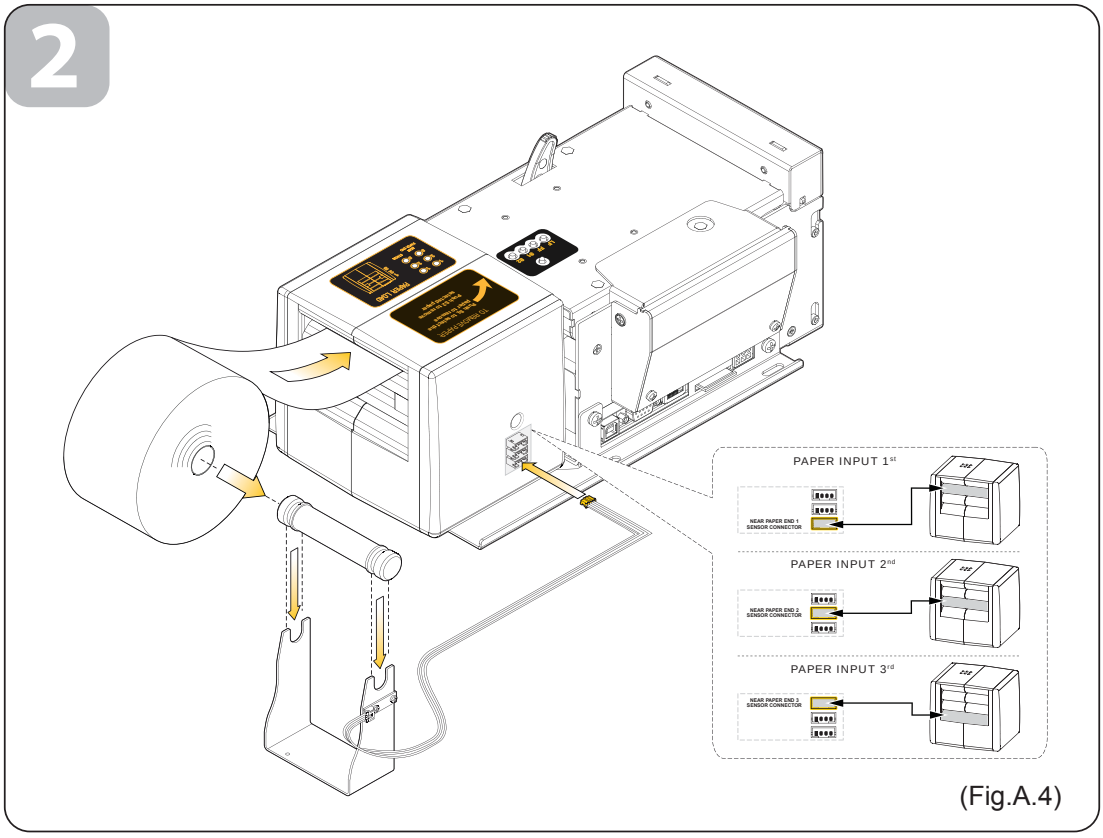
- Remove the connectors's cover from the triple feeder sensors board, located sideways in the triple feeder, by levering with a small slotted head screwdriver on the cover slit, as shown in the fig. A.3.



(Fig.A.3)

- Insert the pin in the paper roll.
- Put the roll assembled to the pin on the support.
- Connect the near paper end sensor of the support with printer, inserting the wiring connector in the relative triple feeder paper input that is used (see fig. A.4).

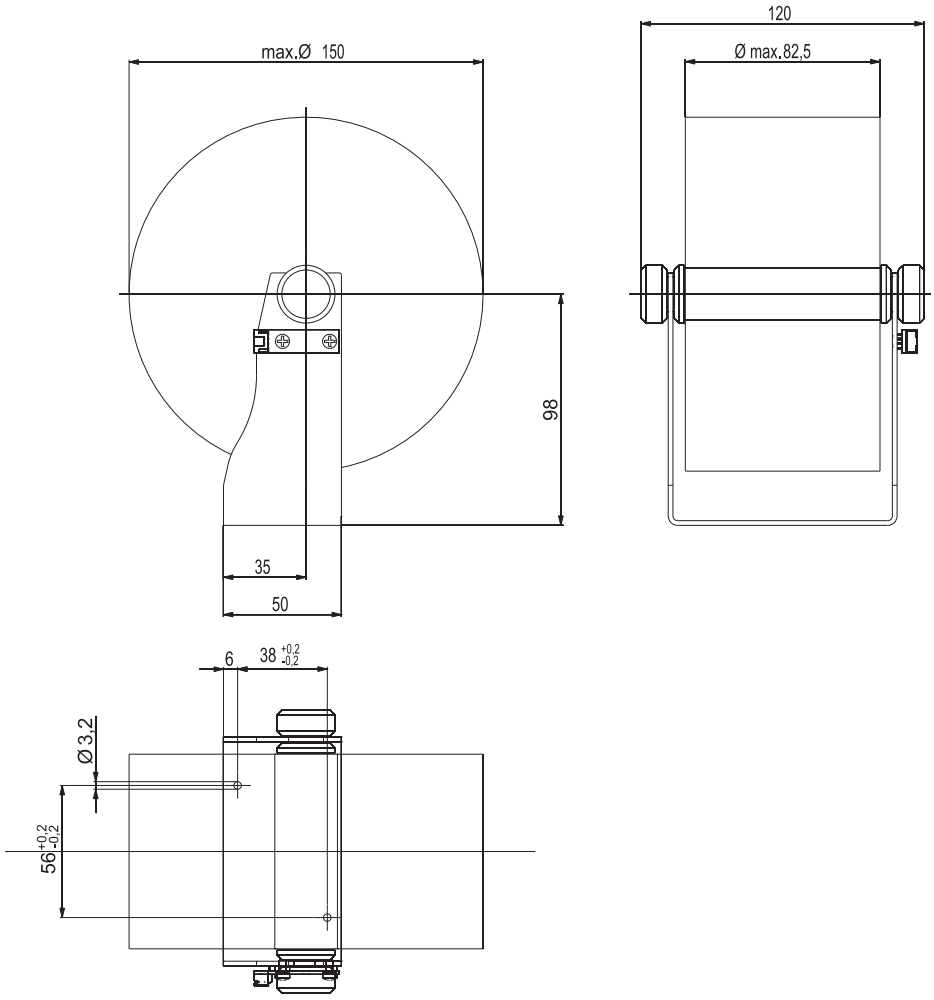
N.B.: To determine wich socket to connect the near paper end sensor of the support, refer to the schema shown in dashed box in fig. A.4.



(Fig.A.4)

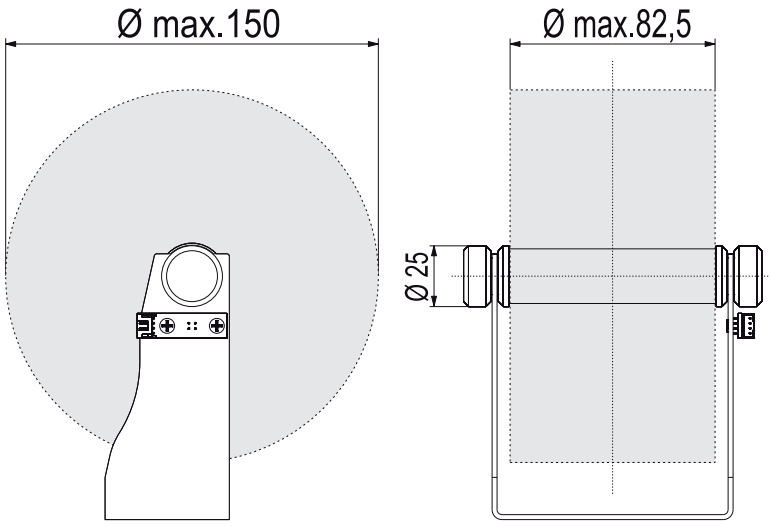
N.B.: To load paper referred to the instructions indicated in par, 1.7.1 of this manual.

Dimensions (in mm)



(Fig.A.5)

Paper roll specifications



(Fig.A.6)

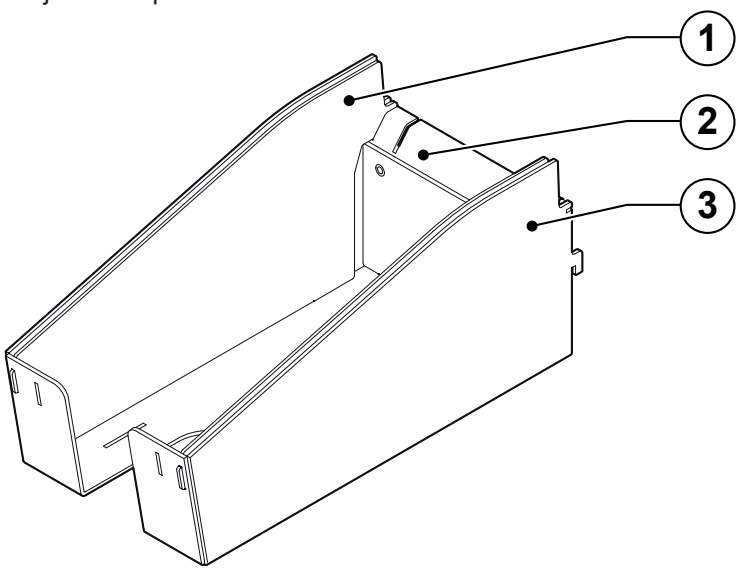
N.B.: For external rolls diameter higher to 100mm it's recommended to use a paper pre tensioning device.

A.1.3 FanFold Holder

It is available for the printer a FanFold paper holder (see fig.A.7) to make it possible to use to contain tickets from 54mm to 82.5mm max.

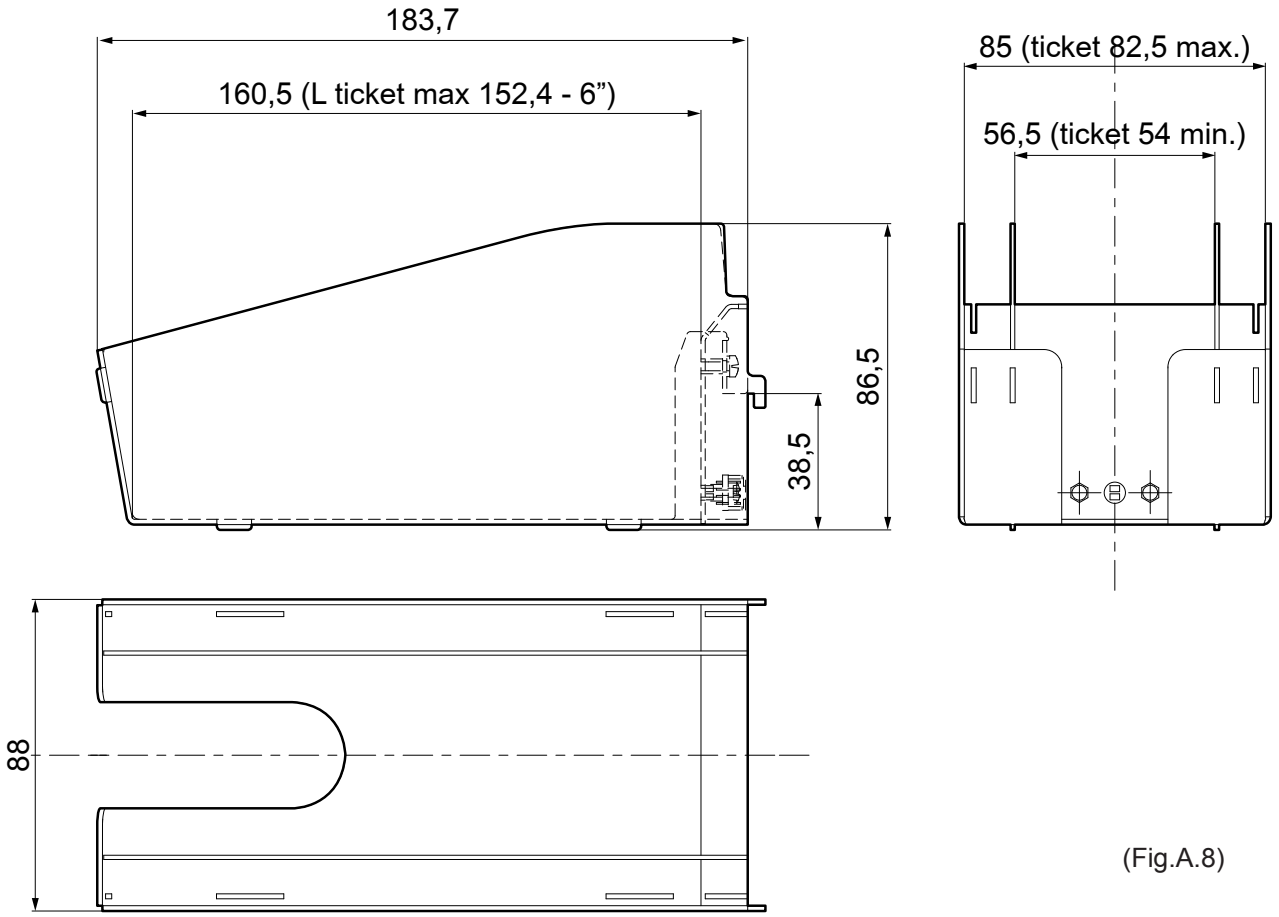
PCXSP-KPM300-FF	FanFold Holder

The kit **PCXSP-KPM300-FF** includes (see fig.A.7):
1. Right internal width adjustment plate;
2. FanFold slot;
3. Left internal width adjustment plate.



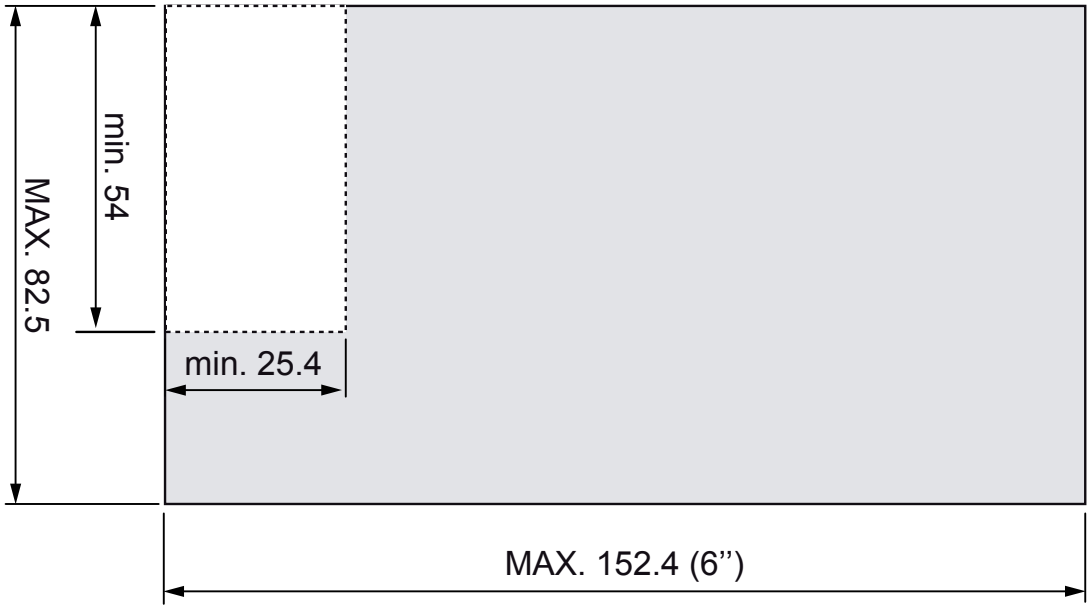
(Fig.A.7)

Characteristics and dimensions



(Fig.A.8)

Ticket specification:

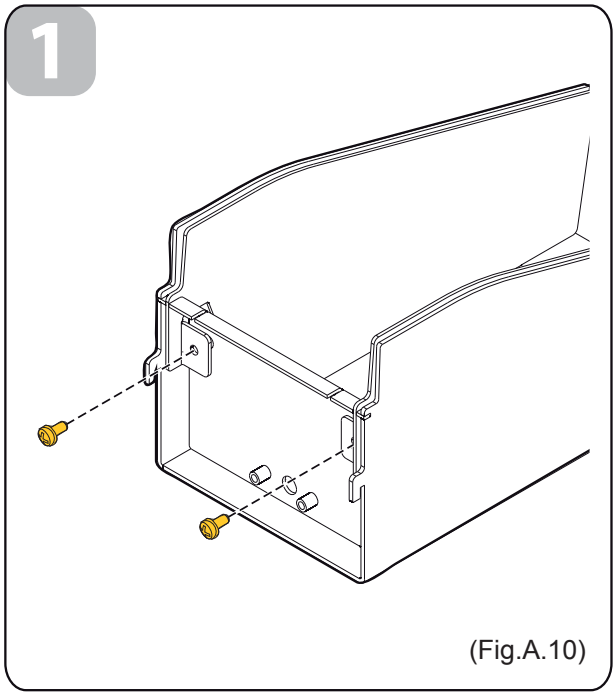


(Fig.A.9)

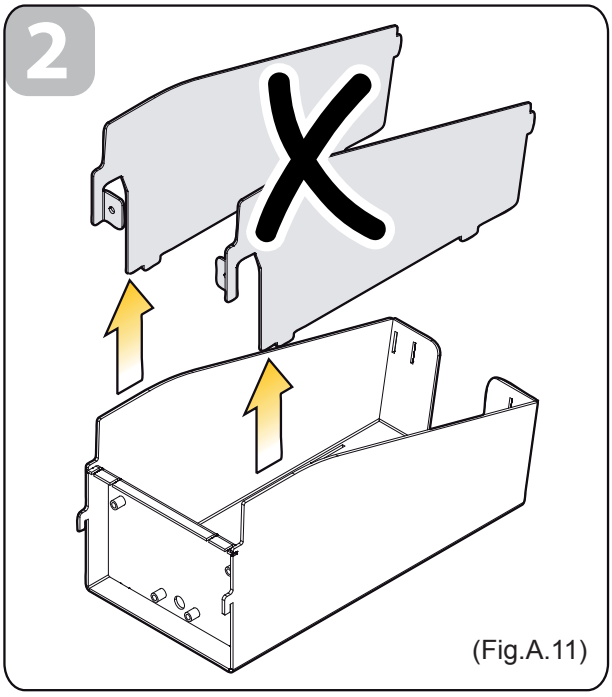
Paper instructions:
Before load the paper, position the internal width adjustment plates, (right and left), in the appropriate place in relation to ticket width used (see following figures).

Using 80 - 82,5 mm ticket width :

- Unscrew the two screw located on the back (see fig.A.10);
- Remove the internal width adjustment plates, right and left, (see fig.A.11).



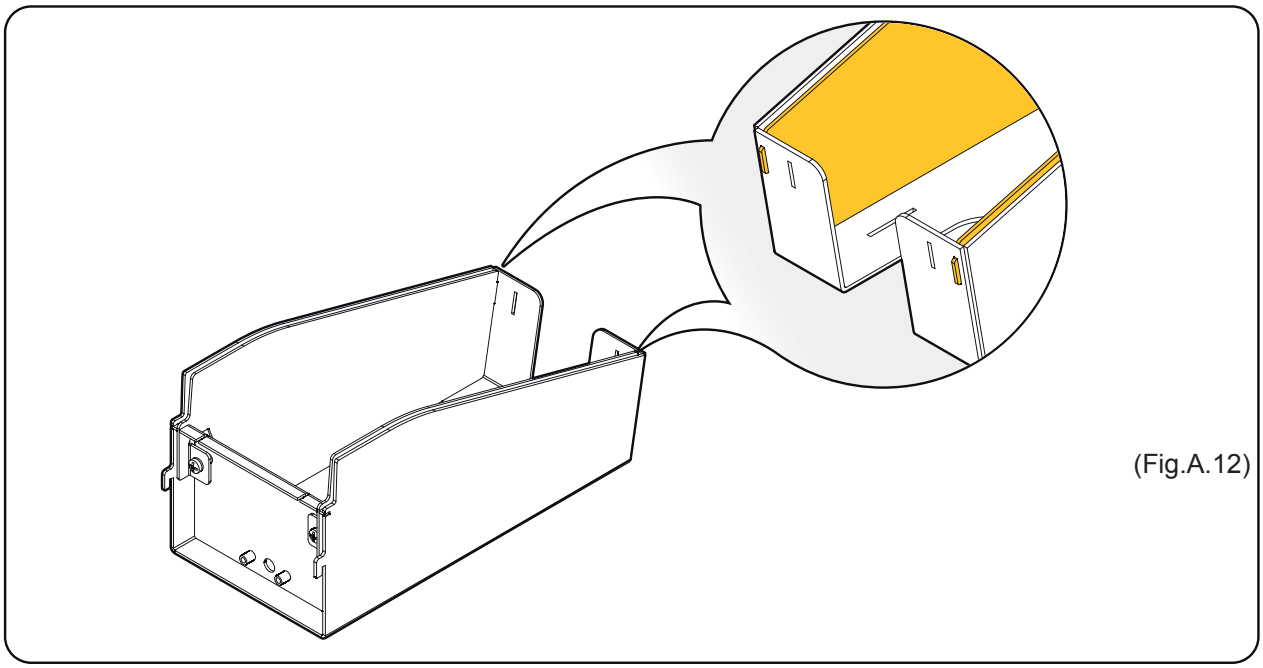
(Fig.A.10)



(Fig.A.11)

Using ticket width between 54 and 72 mm

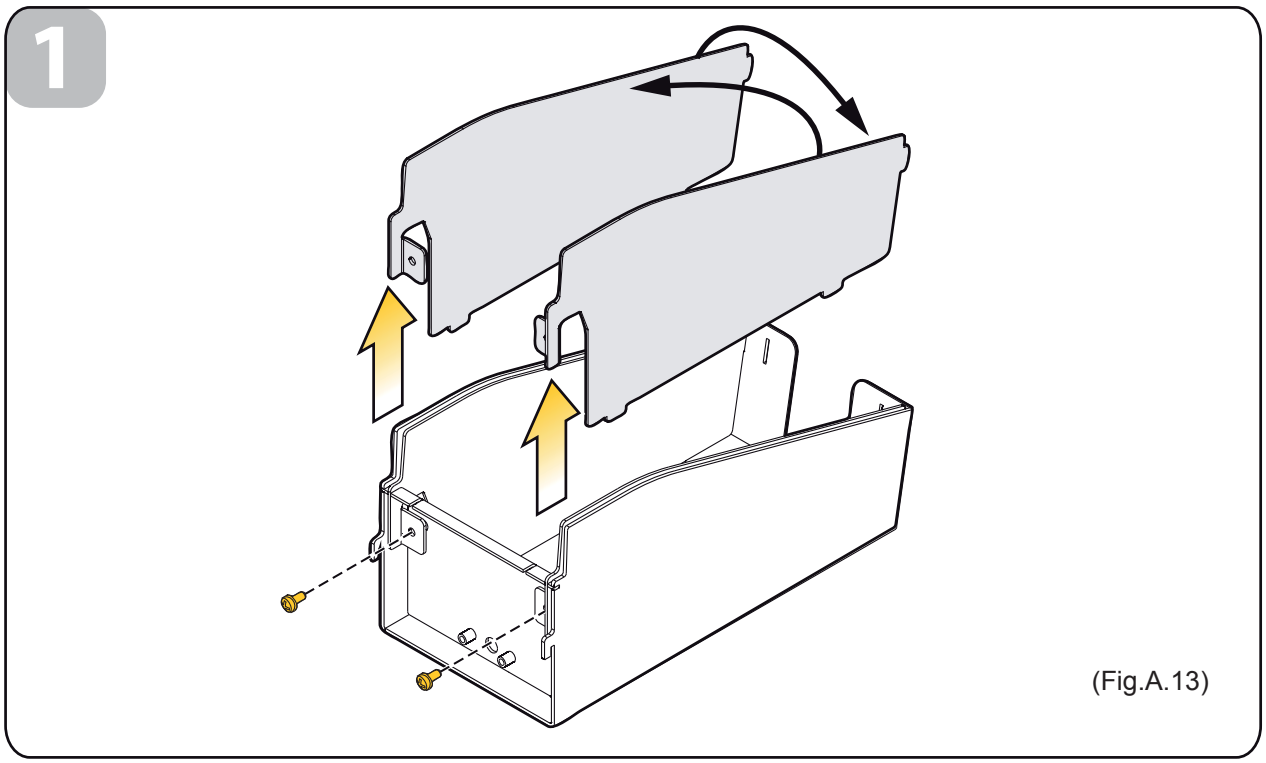
The internal width adjustment plates (right and left) must be in the following position (see fig.A.12). Otherwise unscrew the two screw located on the back (see fig.A.10) and fix the internal width adjustment plates, right and left, as indicated in fig.A.12 with the two screws.



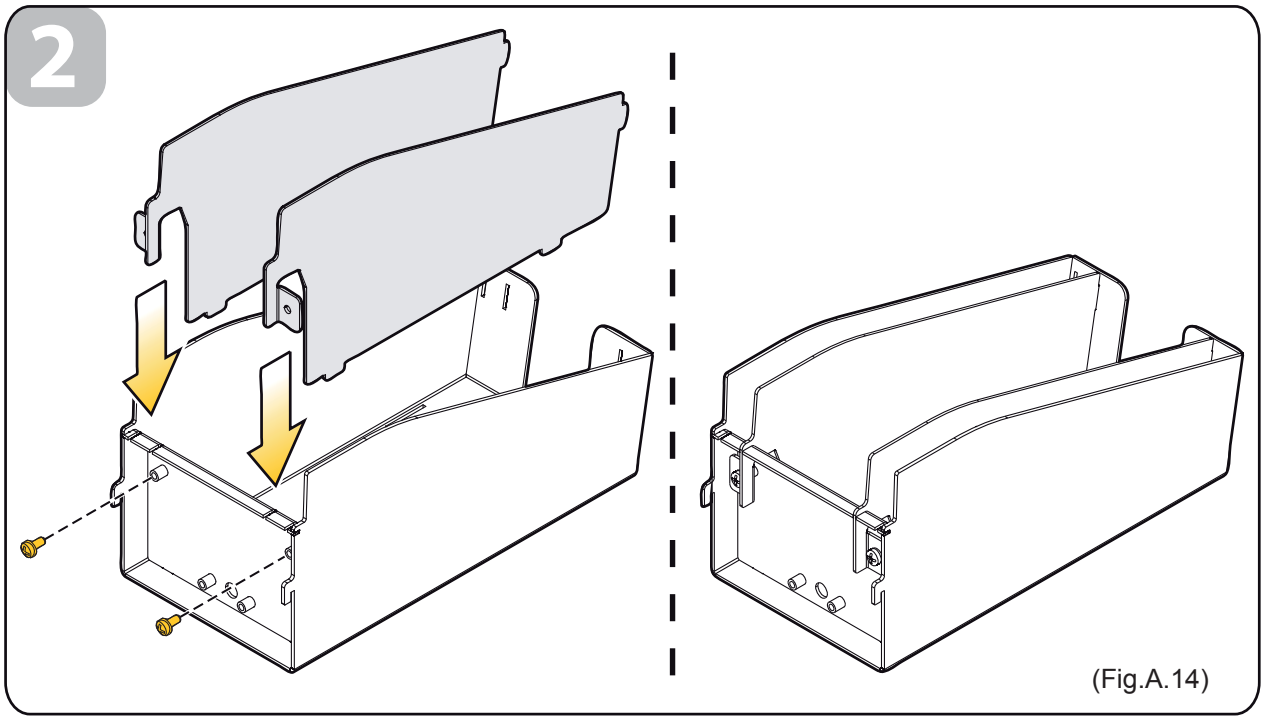
(Fig.A.12)

Using ticket width less than 54 mm or equal

- Unscrew the two screw located on the back (see fig.A.13);
- Interchange the width adjustment plates and position them in the internal slot as indicated in fig.A.14, and fixing again with the two screws.



(Fig.A.13)



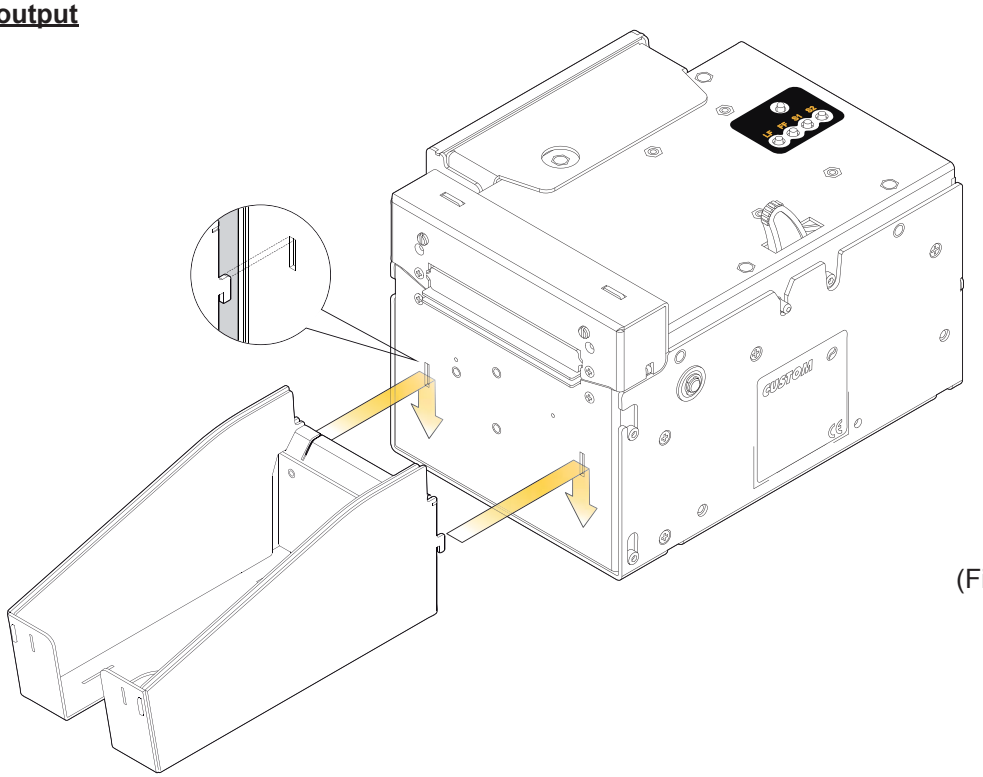
(Fig.A.14)

Assembly instructions

The kit **PCXSP-KPM300-FF** is possible to use both on paper input and paper output (see fig.A.15):

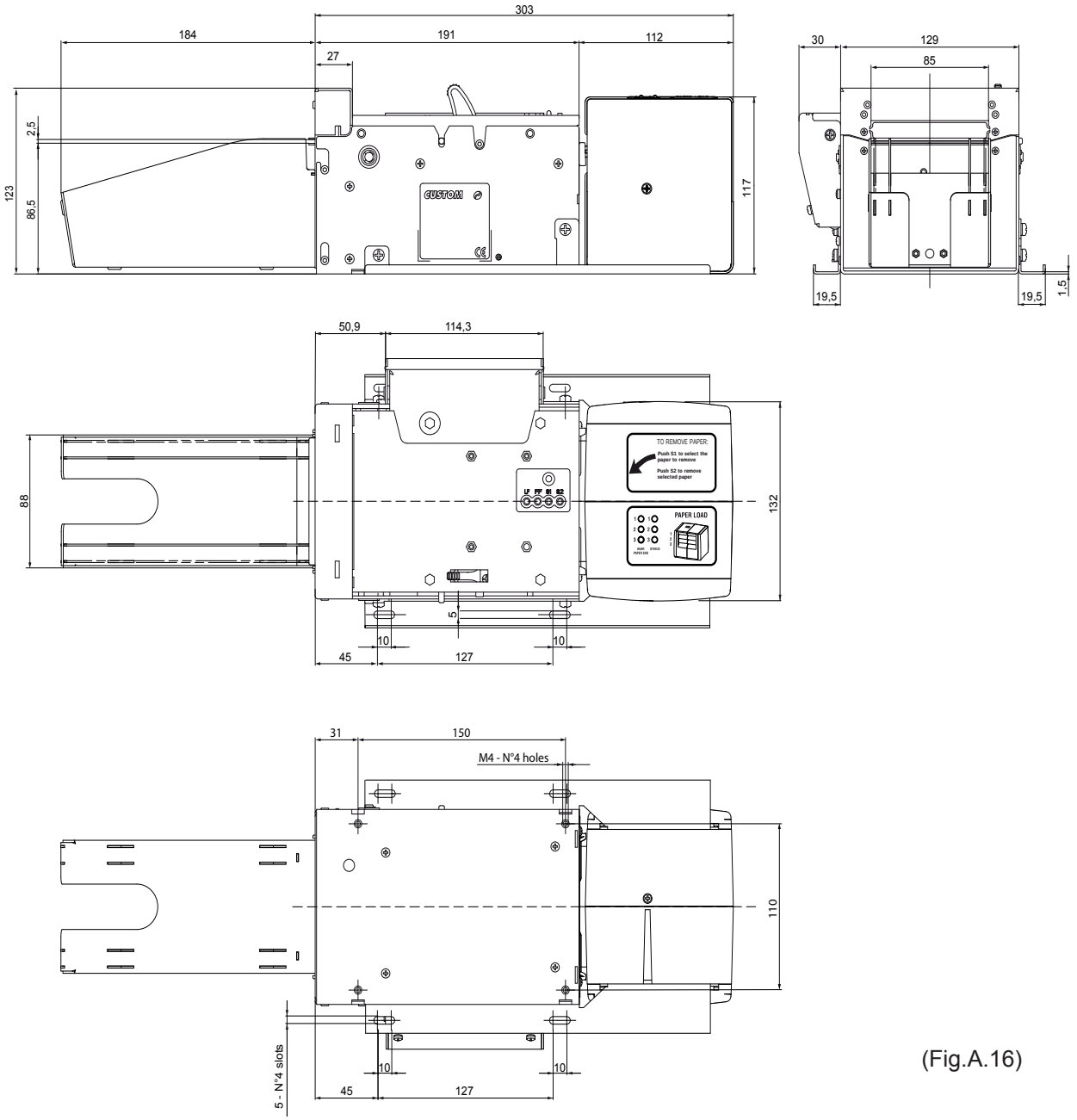
- Fit in the buttonholes on the printer frame.

on paper output



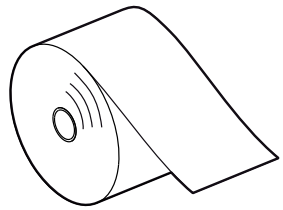
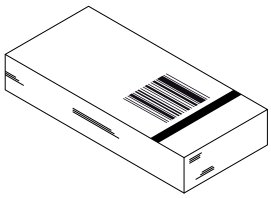
(Fig.A.15)

Printer dimensions with PCXSP-KPM300-FF kit on paper output



(Fig.A.16)

A.2 SPARE PARTS

	COMPONENT	CODE
	Thermal paper roll 80mm (Øext= 180mm, Øcore= 25mm, 165gr)	**RCT80X180-25MM-165GR**
	Thermal FANFOLD module 155x165 (255 grams)	**RCTFF-B-155-65-255GR-N**

B.1 TICKET ALIGNMENT

B.1.1 Ticket alignment

Paper with an alignment notch can be used in order to handle tickets with pre-printed fields and a fixed length.
To guarantee the alignment it is necessary that the *"Notch Alignment"* parameter is enabled from the key setup (see setting configuration parameters), that the alignment sensor is calibrated and that the parameters are set.The calibration of the sensor occurs automatically within the printer setup or pressing the S1 key during power-up..

B.1.2 Enabling, calibrating and setting of parameters

The printer manages tickets with notch; place the notch on the heat sensitive side or on the non-heat sensitive side of the ticket; in central position or in the side position (see par. 1.6 Paper Specifications).
To guarantee a correct alignment it is necessary that the *"Notch Position"* parameter is setted with the right value because the printer must know which sensor utilize from notch searching.

All printer sensors are reflection sensors: this kind of sensor emits a band of light and detects the quantity of light reflected to it.

The presence of the notch is therefore detected by the amount of light that returns to the sensor, taking into account that the light is reflected by the white paper and absorbed by the black mark.

However is possible to use sensors coupled two by two (transparence sensors), using the sensor's transmitter with the receiver of the opposite: during this operating condition a beam of light is emitted by a sensor and the quantity of light which reaches the opposite receiver is detected.

The presence of the notch so is detected evaluating the amount of light that arrives to the opposite sensor, considering that the paper doesn't allow the beam of light to reach the receiver, whereas a gap (like label with gap) or hole, lets the light to reach the receiver.

"Notch Position" parameter	Using mode	Notch position on ticket	Notes
Disabled	N.A.	N.A.	Alignment disabled
Low side	REFLECTION	Lateral non-thermal side	Using notch printed on ticket to align
Up side	REFLECTION	Lateral thermal side	Using notch printed on ticket to align
Low center	REFLECTION	Central non-thermal side	Using notch printed on ticket to align
Up center	REFLECTION	Central thermal side	Using notch printed on ticket to align
Tr. side	TRANSPARENCE	Lateral	Using ticket with gap or label with gap
Tr. center	TRANSPARENCE	Central	Using ticket with gap or label with gap

Calibration of the sensor occurs automatically and consists in adjusting the quantity of light emitted to adapt it to the degree of whiteness of the paper used.

To start self-calibration, the "Notch Position " parameter will be setted in a different value by "Disabled" value from the printer setup (see setting configuration parameters) or pressing the S1 key during power-up.

The printer will perform some paper FEEDS, at the end of which it will print the calibraration result and the value of the PWM duty-cycle of the alignment sensor driver so that it can be perform an optimal notch detection, for example:

Autosetting Notch : **OK**
Threshold White : **85.3%**

The *"Autosetting Notch"* parameter indicates the operating condition of the self-calibration process; OK will appear if it has been successful, but if it has failed the words NOT OK will appear.

Another parameter that needs to be set is the threshold:

Notch Threshold.. : 40%

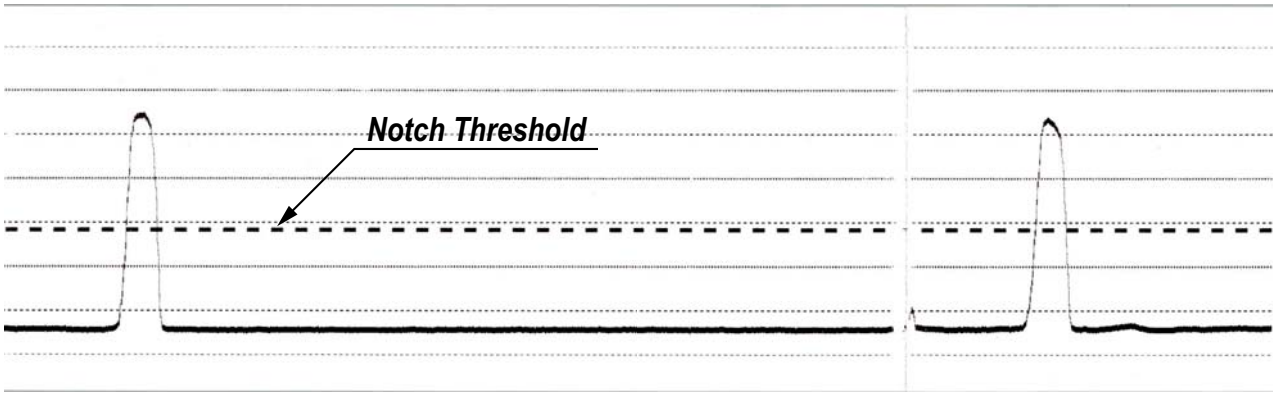
It is used to detect the presence of the notch: if the voltage value read by the sensor exceeds the threshold value set the notch is identified, otherwise the white paper is considered.
In order to better identify the optimum threshold for the paper being used, a paper characterisation function is also available in setup.

Characterize Paper. :Yes

By activating this parameter the outgoing voltage of the sensor will be presented in a graphic form as shown in figure B.1 below:

PAPER CHARACTERIZATION

(Fig.B.1)



N.B.: The outgoing voltage of the sensor will be presented in a graphic as a percentage value.
N.B.: This characterization paper is made using the fan fold module packed with the printer.

The graphic shows the outgoing voltage of the sensor and the threshold value previously set. It is clear that by adjusting the threshold value it is possible to find the best position that takes into account the signal peak and the small oscillations around zero.

The ALIGNMENT POINT is defined as the position inside the ticket that is the desired alignment point.
The ALIGNMENT POINT can be defined over the notch or near this one; for this reason, the final parameters to be set in setup are:

Notch Dist. [mm x 10] . : 1
Notch Dist. [mm x 1] . : 5
Notch Dist. [mm x .1] . : 0

These parameters define the “Nocth Distance” that represents the distance from the notch to align or simply identify the notch distance from the ticket margin; in the above example the notch distance is 15 mm.

(Fig.B.2)

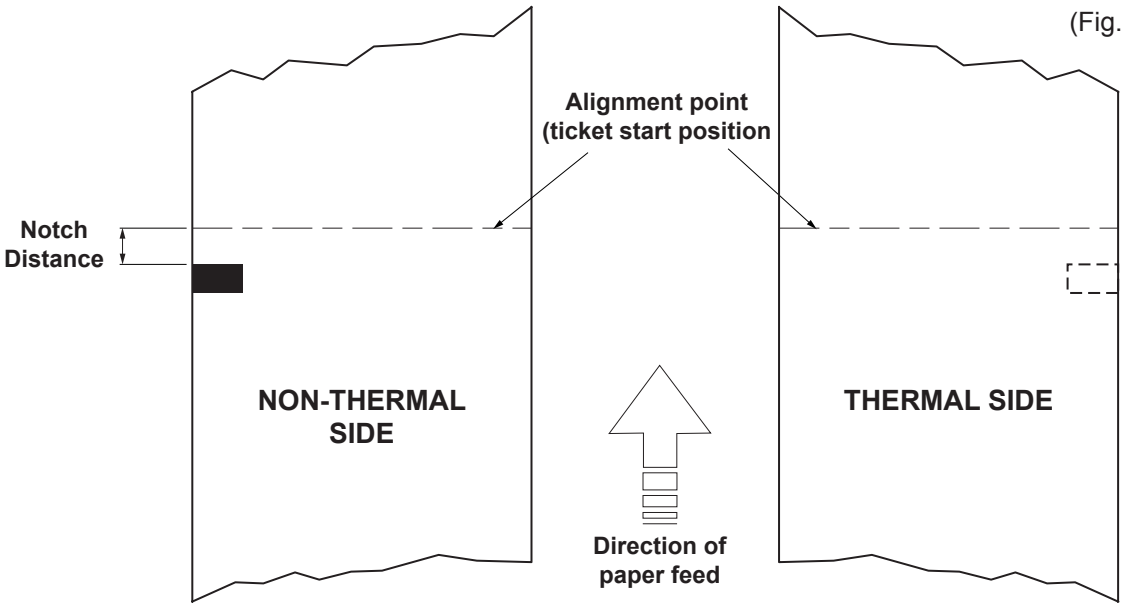
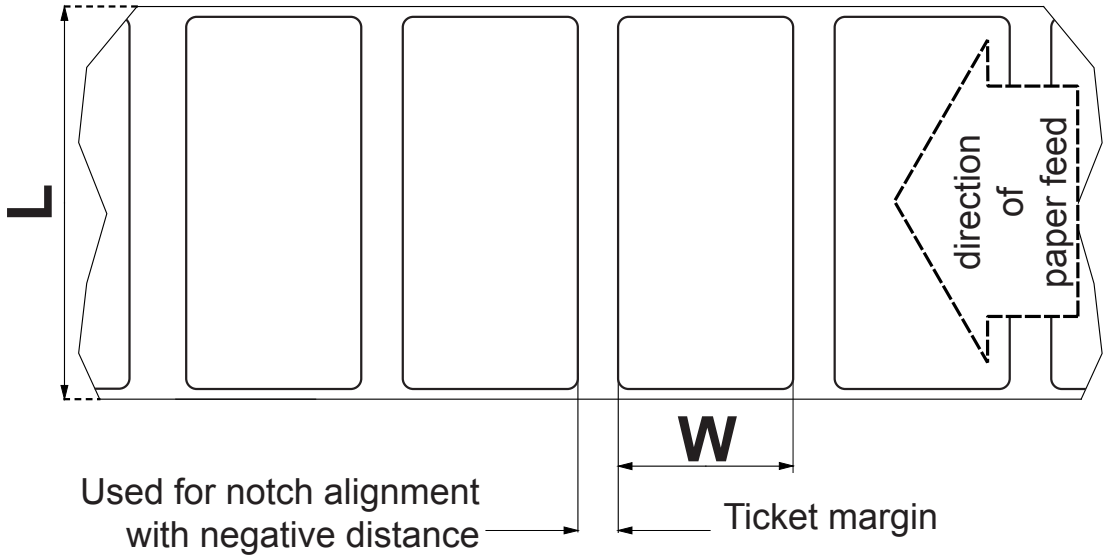


Figure B2 shows how the “Notch Distance” parameter represents the distance that exists between the notch and the desired alignment point. This parameter can have a minimum value of -5mm (negative value) and a maximum of 67 mm. In reality the maximum distance corresponds to the mechanical distance between the notch sensor and the head, and it is for this reason that higher values are not permitted.

To place the “ALIGNMENT POINT” before the notch, (or rather that the notch is external to the ticket used), setting the “Notch distance” to a negative value (see fig.B.3).



(Fig.B.3)

where
L = represents the paper width used (54 ¸ 82.5 mm);
W = indicates the minimum managed length 25.4 mm (1”).

B.2 COMMANDS

B.2.1 Ticket alignment

The commands to manage ticket alignment are present only in ESC/POS™ emulation; in SVELTA emulation are automatically performed with the printing commands <p> <P> <q> <Q>.

In ESC/POS™ emulation the two alignment available commands are : **$1D $F6** and **$1D $F8**.

The command **$1D $F6** performs an alignment to the print head: the paper is fed through until the print head is at the ticket start.
The command **$1D $F8** on the other hand refers to the cutter: the paper is fed through until the cutter is at the set alignment point of the next ticket, so that a subsequent cut will occur precisely at the end of the ticket.

B.2.2 Setting the alignment distance

The “Notch Distance” parameter can be changed via the printer setup or by using the command **$1D $E7 nH nL**. For further information refer to the command itself.

In SVELTA emulation the parameter used to set the alignment is not the “Notch Distance” modifiable in the printer setup, but it is necessary setted using the command LHT.

B.2.3 Examples

N.B.: To a better comprehension, in the following figures, the Notch is indicated on the same side of the printing text.

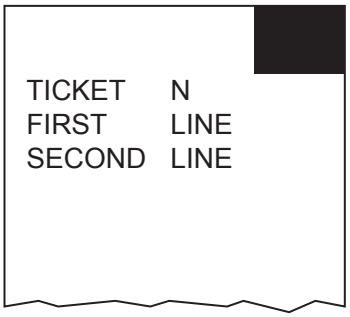
Example 1

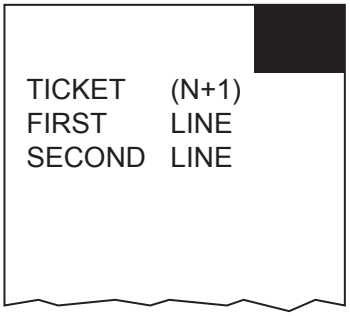
To print a ticket’s sequence witch the cut is made over the notch it’s necessary set the notch distance to zero as follows (this setting have effect after the ticket already in the printer):

{Set Notch Distance}
$1D,$E7,$00,$00,

{Print text}
‘TICKET 1’,$0A,’FIRST LINE’,$0A,’SECOND LINE’,$0A
{Cut alligment}
$1D, $F8,
{Cut}
ESC,’i’,
...

{Print text}
‘TICKET 1’,$0A,’FIRST LINE’,$0A,’SECOND LINE’,$0A
{Cut alligment}
$1D,$F8,
{Cut}
ESC,’i’,
...





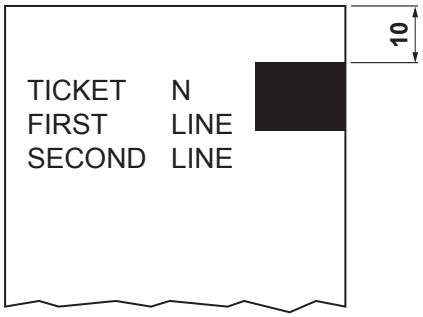
(Fig.B.4)

Example 2

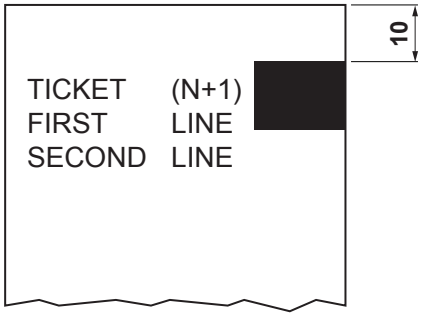
To cut 10mm before the notch the command sequence is (this setting have effect after the ticket already in the printer):

$1D, $E7, $00, $0A,

{Print text}
'TICKET 1',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut alligment}
$1D, $F8,
{Cut}
ESC,'i',
...



{Print text}
'TICKET 1',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut alligment}
$1D,$F8,
{Cut}
ESC,'i',
...



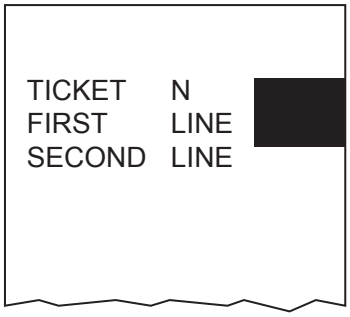
(Fig.B.5)

Example 3

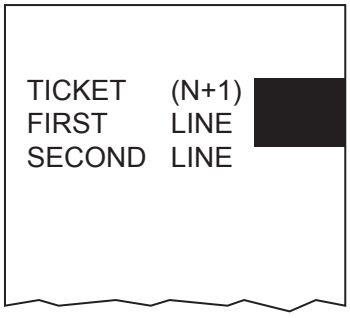
To print over the notch the command sequence is (this setting have effect after the ticket already in the printer):

{Set Notch Distance}
$1D,$E7,$00,$00,

{Print head aligment}
$1D, $F6,
{Print text}
'TICKET 1',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut}
ESC,'i'
...



{Print head aligment}
$1D, $F6,
{Print text}
'TICKET N',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut}
ESC,'i'



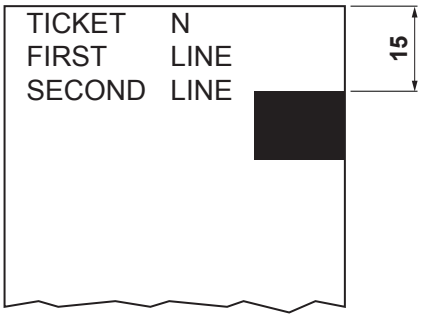
(Fig.B.6)

Example 4

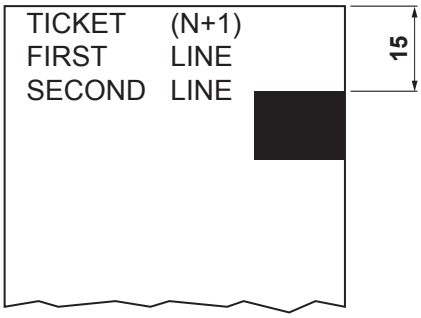
To print 15mm before the notch the command sequence is (this setting have effect after the ticket already in the printer):

{Set Notch Distance}
$1D,$E7,$00,$0F,

{Print head aligment}
$1D, $F6,
{Print text}
'TICKET 1',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut}
ESC,'i'
...



{Print head aligment}
$1D, $F6,
{Print text}
'TICKET N',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut}
ESC,'i'

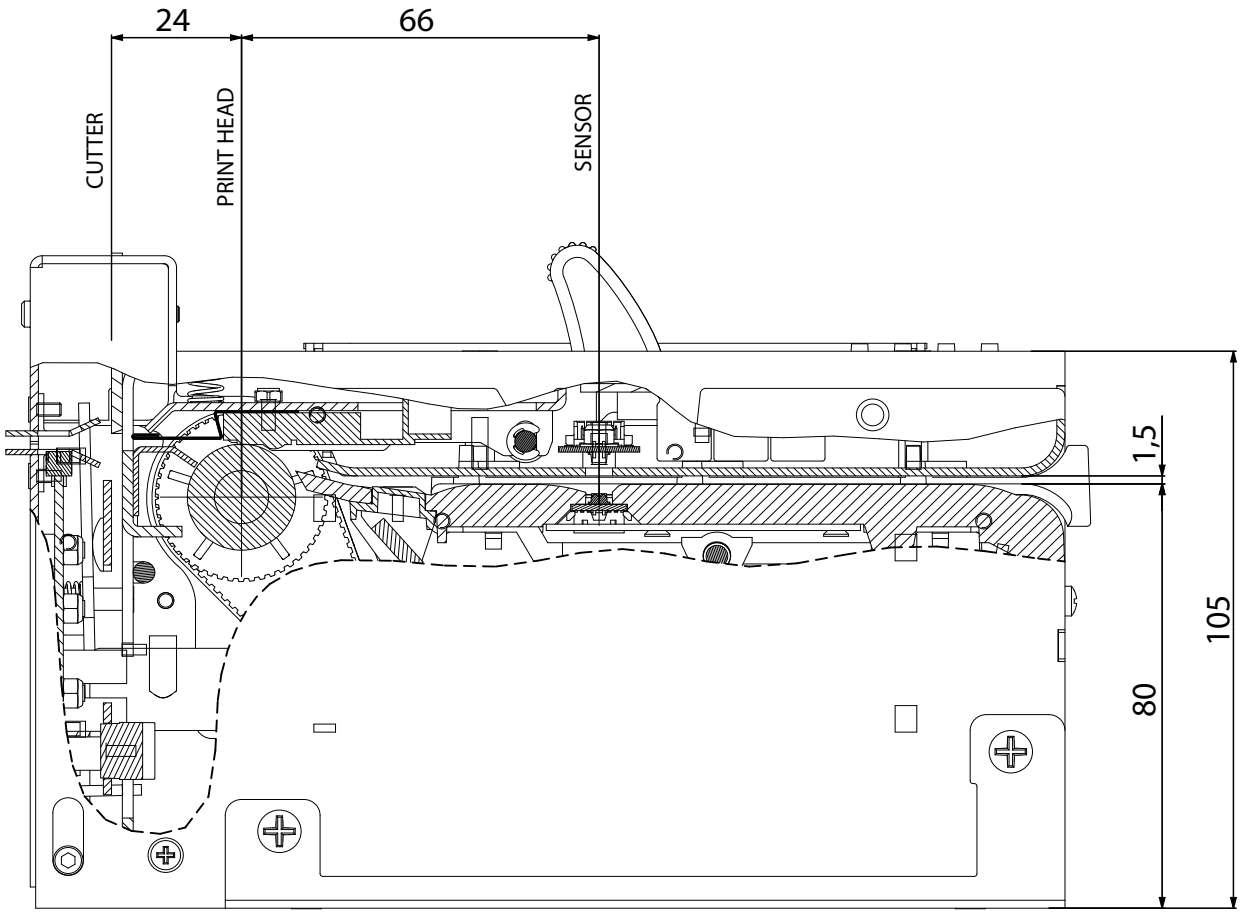


(Fig.B.7)

B.3 PAPER CHARACTERISTICS

B.3.1 Position of the notch

Figure B.8 shows a section of the printer and the distances between the head, the cutter and the notch sensor.



(Fig.B.8)

B.3.2 Dimension of tickets

It is very important to well calibrate the height of the printer area, according to the distance between the two edges of the notch. In order not to miss a notch (a ticket must therefore contain only one notch) the following equation must be used:

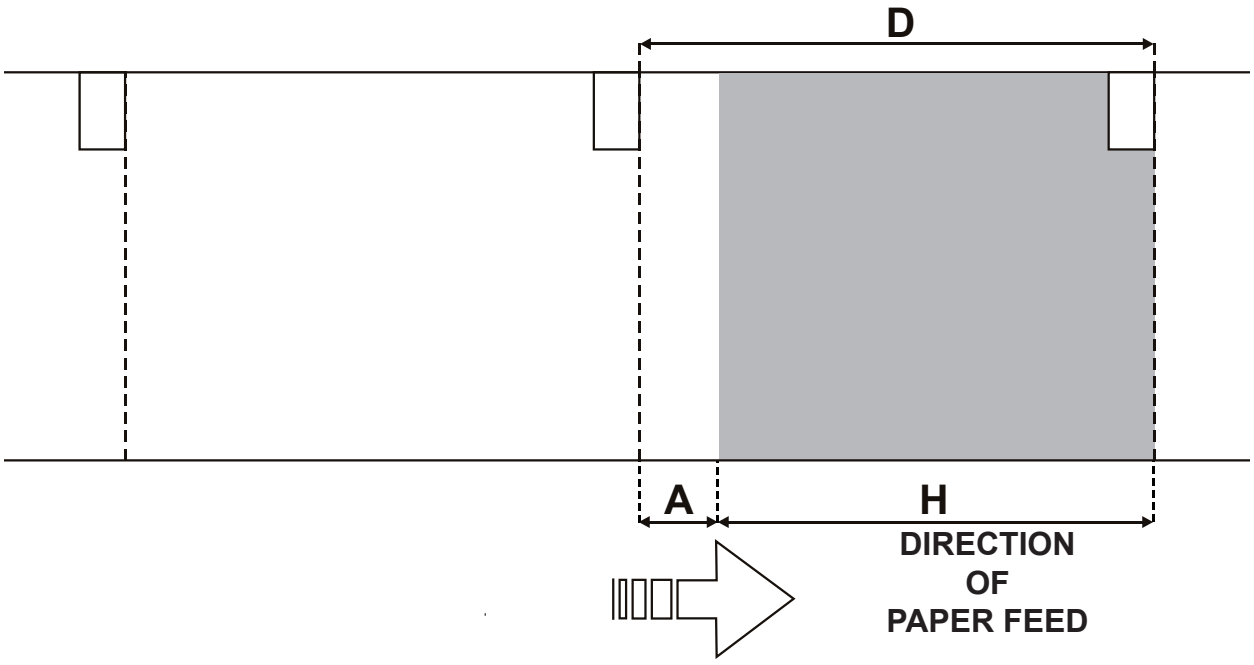
INTER-NOTCH DISTANCE>PRINTED AREA HEIGHT

where

INTER-NOTCH DISTANCE = the distance between two notch edges

The picture in figure B.9 shows a sequence of printed tickets aligning each one at the cut. It can be noted that increasing the printed area will result in superimposing what is to be printed at the subsequent notch. The size of the print area can be enlarged until it renders the alignment feed void, but not beyond.

LEGEND:
A = Alignment feed
H = Printing area height
D = Inter-notch distance



(Fig.B.11)

N.B.: In ESC/POS™ emulation to prevent any jamming, after cut, the paper is not completely recovered, but it remains outside the printing line of 10mm; so it's very important to consider this distance, in this emulation, during the ticket layout definition.
In SVELTA emulation, directly designed for ticketing, on the contrary the paper recovering is not necessary, because after a cut non-printable areas are not produced.

B.4 METHODS OF USAGE

B.4.1 Command sequences

It is possible, when printing sequences of tickets, to primarily identify two different methods of operation that involve the alignment: ticket aligned at the cut, ticket aligned at printing and combined alignment.

B.4.1.1 Alignment at the cut

The sequence of commands to be entered when wanting to align a ticket at the cut is as follows:

1. Ticket general setting; formatting of characters, print density, margins etc.
2. Print ticket: Printing of text, logos or any other graphics.
3. Alignment at the cut command: $1D $F8.
4. Cut command.

B.4.1.2 Alignment at printing

Alignment at printing requires the following sequence of commands:
1. Ticket general setting; formatting of characters, print density, margins etc.
2. Print alignment commands: $1D $F6.
3. Print ticket: Printing of text, logos or any other graphics.
4. Cut command.

Unlike the previous case, the alignment feed takes place before the start of printing, so as to align the print area in the position required.

B.4.1.3 Combined alignment

The combined alignment at printing and at the cut is the most alignment used on ticketing applications and requires the following sequence of commands:
1. Ticket general setting; formatting of characters, print density, margins etc.
2. Print alignment commands: $1D $F6
3. Print ticket: Printing of text, logos or any other graphics.
4. Alignment at tha cut command.
5. Cut command.

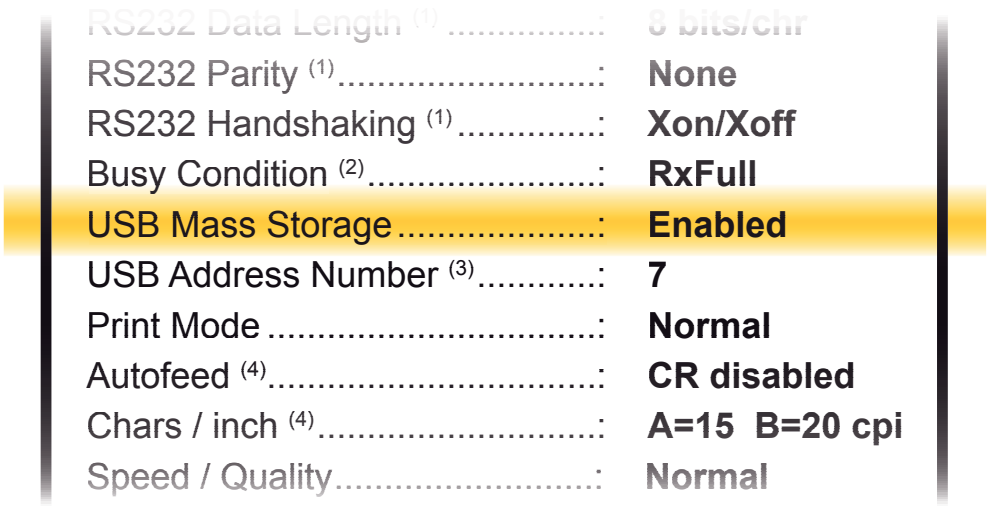
This method of operation has favourable, compared with previously methods, because all printed thickets are the same length apart from length of printable area.

Blank page

C.1 PRINTER SET-UP

C.1.1 Mass Storage activation

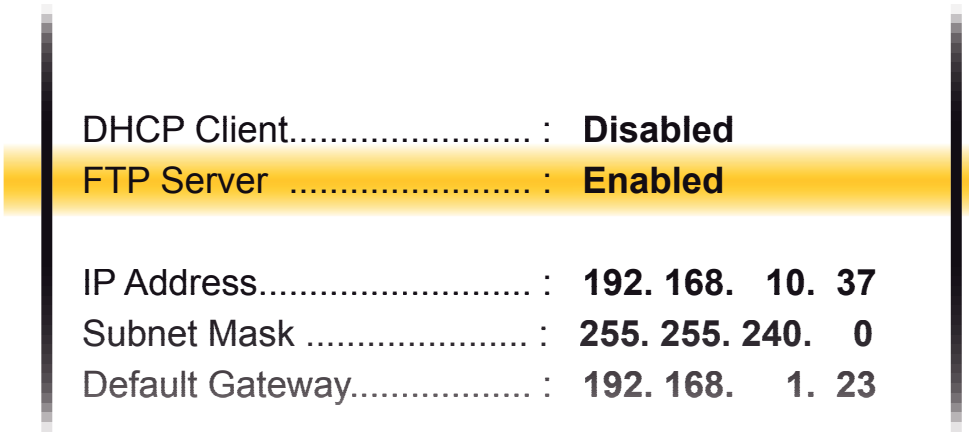
One of the parameters related to printer configuration (see par.1.3.2), is “USB Mass Storage” (see fig.C.1). The allowed values for “USB Mass Storage” parameter are Disabled (default value) and Enabled. It allows to disable or enable the files sharing from Mass Storage with a USB connection between KPM300H-TF and a computer.


RS232 Data Length (1) .....: 8 bits/chr
RS232 Parity (1).....: None
RS232 Handshaking (1).....: Xon/Xoff
Busy Condition (2).....: RxFull
USB Mass Storage.....: Enabled
USB Address Number (3).....: 7
Print Mode .....: Normal
Autofeed (4).....: CR disabled
Chars / inch (4).....: A=15 B=20 cpi
Speed / Quality.....: Normal

(Fig.C.1)

C.1.2 FTP Server activation (Only for models with Ethernet interface)

One of the Ethernet parameters related to printer configuration (see par.1.3.1), is “FTP Server” (see fig.C.2). The allowed values for “FTP Server” parameter are Disabled (default value) and Enabled. It allows to disable or enable the files sharing from FTP Server connection between KPM300H-TF and a computer.



(Fig.C.2)

NOTE: To enter the printer’s Set-up mode and configure parameters value, follow the instruction of par.1.3.

C.2 EMBEDDED WEB SERVER (only for models with Ethernet interface)

KPM300H-TF models with Ethernet interface, are equipped with an Embedded Web Server that allows to execute some operations on printers, through a clear web interface, including:

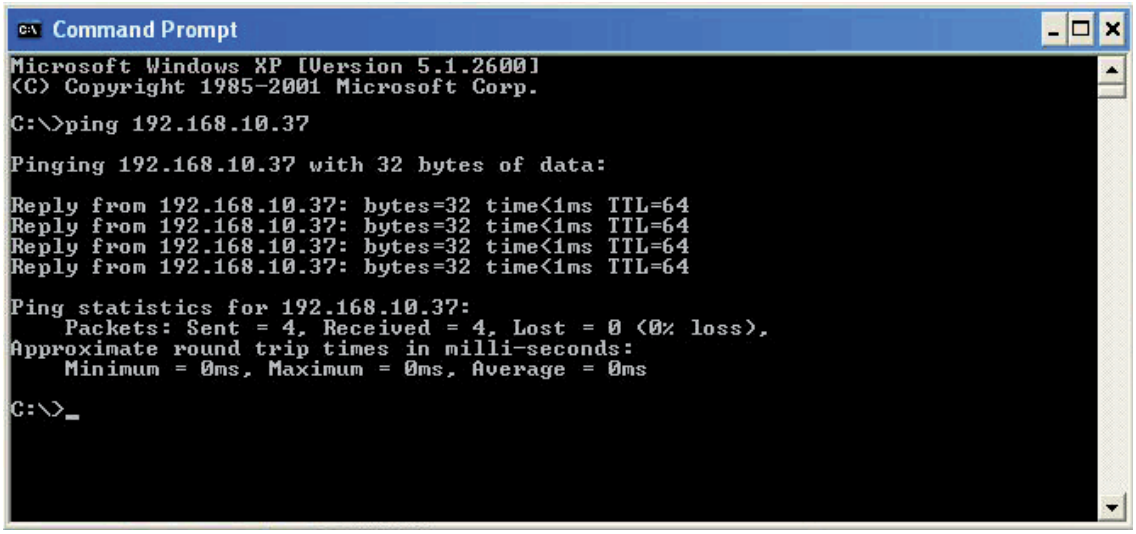
- monitoring the printer status;
- setting operating parameters;
- configuring network settings;
- managing the logos;
- configuring the email service to make diagnostics and maintenance operations easier;
- download printing drivers.

C.2.1 Connection check

Before entering in the Embedded Web Server, check that:

- the printer is connected and turned on;
- the printer has a network connection based on the IP protocol;
- the following door are opened (if a Firewall is present on computer): 9100 (or differently set up). 15000, 15001, 15002;
- have a Web browser on the computer;
- the printer is connected to the network and its IP address and its Subnet Mask are set up in a correct way. To check the setting of this parameters, open a new terminal window and type “ping” on the command bar followed by the IP address of the printer. The picture C.3 shows an example of a positive result after the “ping” command. Otherwise, if connection isn’t possible, to its IP address, will appear an overdue request mistake.

Example: ping 192. 168. 10. 37



(Fig.C.3)

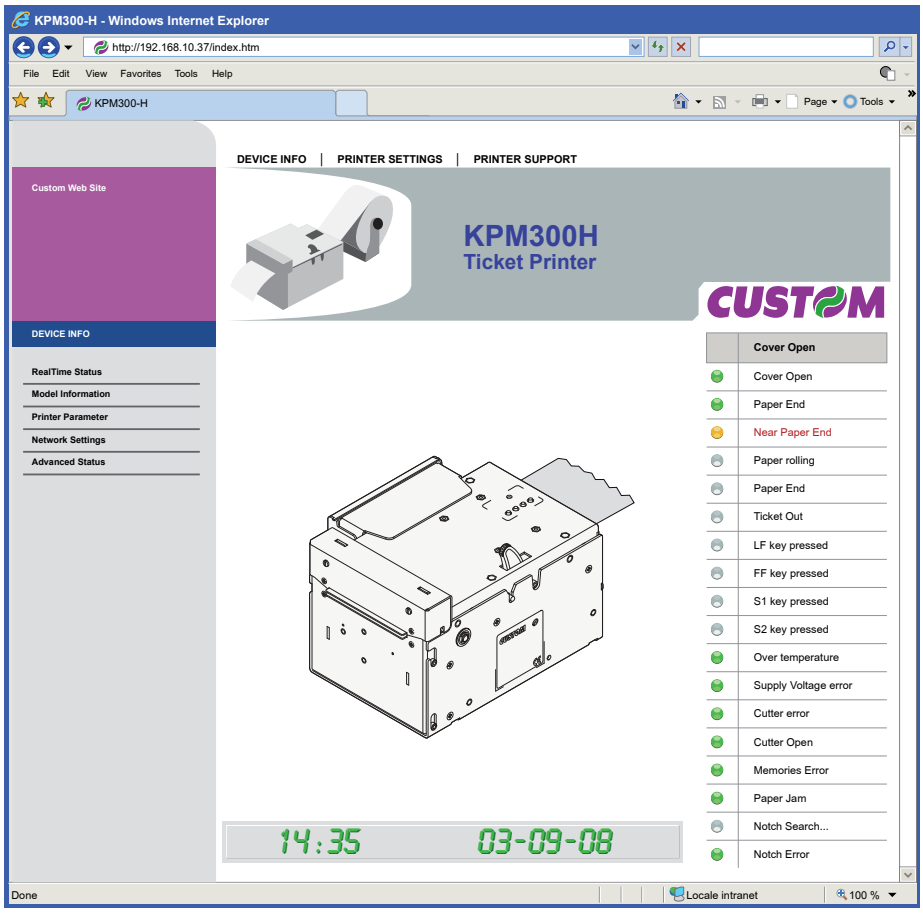
C.2.2 Embedded Web Server access

To enter the Embedded Web Server, type the IP address assigned to the printer into Web browser. For example, if IP address of the printer is 192.168.10.37, type in the Web browser:

http://192.168.10.37

On the screen will appear the internal default page that corresponds to the section “Device Info” (see fig.C.4).

NOTE: To know the IP address of the printer, print the Set-up report of the printer (see par.1.3.1) or use “Locator” (see par.C.3).



(Fig.C.4)

The Embedded Web Server has 3 sections present in every Web page as horizontal command bar in the upper part of the page (see fig.C.4). These sections are:

- Device Info
- Printer Settings
- Printer Support

To enter some sections and some configuration services, it is required the identification of the user and password. To make registration and to obtain the access to the restricted areas, when it is required insert the user name and the password as indicated in the following table:

User Name	**Custom**
Password	**AlwaysOn**

(Tab.C.1)

NOTE: Respect capital and small letters as indicated in table C.1.

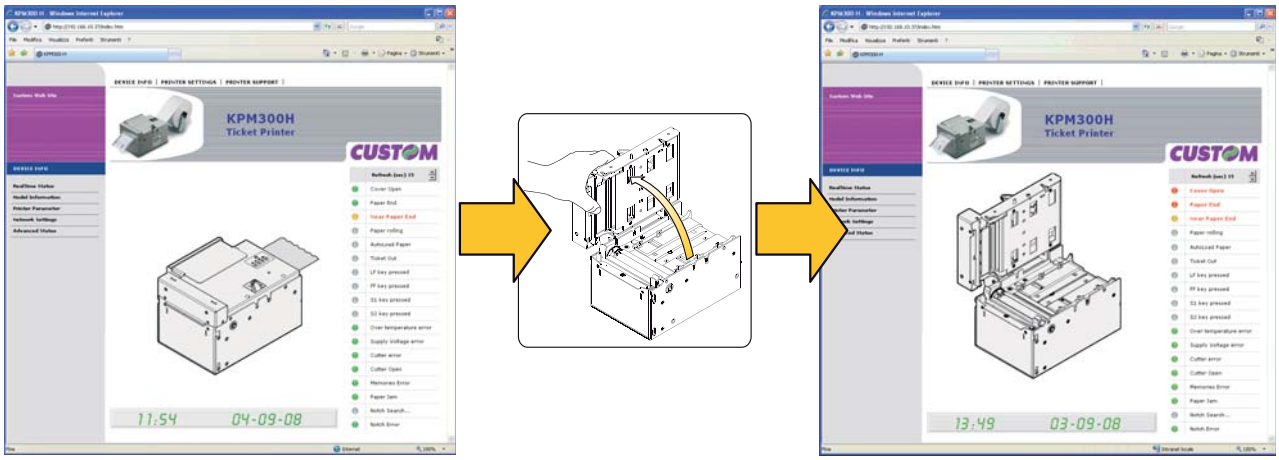
C.2.3 Embedded Web Server functions

Status Monitor

In the “Device Info” section, it is possible to display in real time the printer operating status using the following tools:

- RealTime Status.
- Model Information.
- Printer Parameter.
- Network Settings.
- Advanced Status.

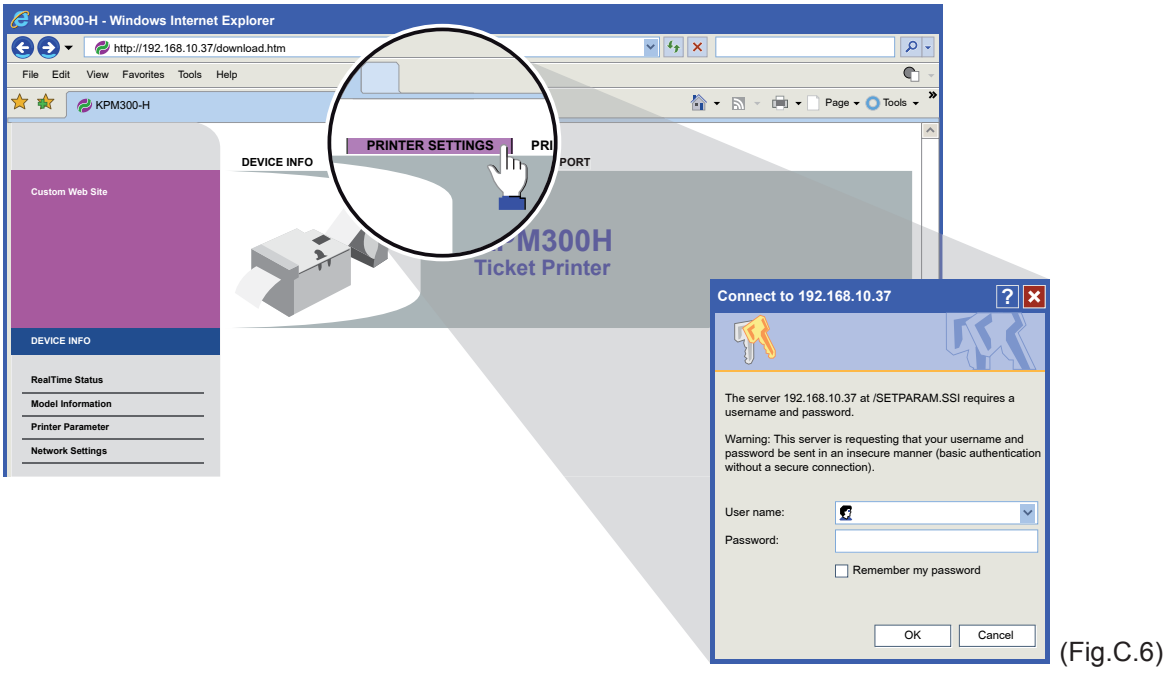
In the page related to “Real Time Status” tool (the internal default page), it is possible to monitor in real time (with a refresh adjustable from 5 to 15sec) and to configure some parameters. The printer picture in the centre of the page and the colour of the lights and the text will signal every change of operating state of the printer (see fig.C.5).



(Fig.C.5)

Printer settings

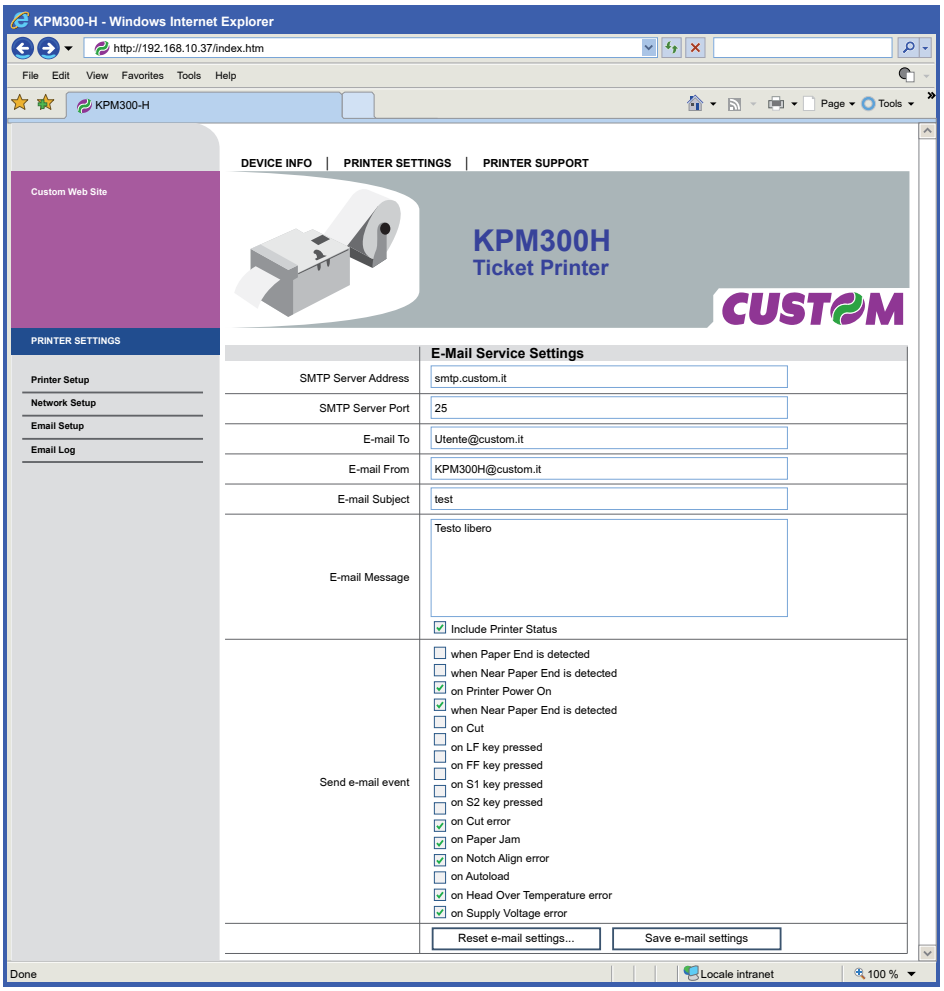
The “Printer Settings” section is a restricted one. To enter the section, it is required the identification of the user and password (see par.C.2.2).



(Fig.C.6)

The printer configuration tools are:
- Printer Setup.
- Network Setup.
- Email Setup.
- Email Log.

With these tools, it is possible to set up the same parameters of the printer that are configurable in the printer's Set-up mode (see par.1.3).
With the "Email Setup" tools it is possible to configure the automatically delivery of service email in order to inform the user when a change occurs to operating status of the printer.
The service email can include a short configurable message and the information about the operating printer status (see fig.C.7).

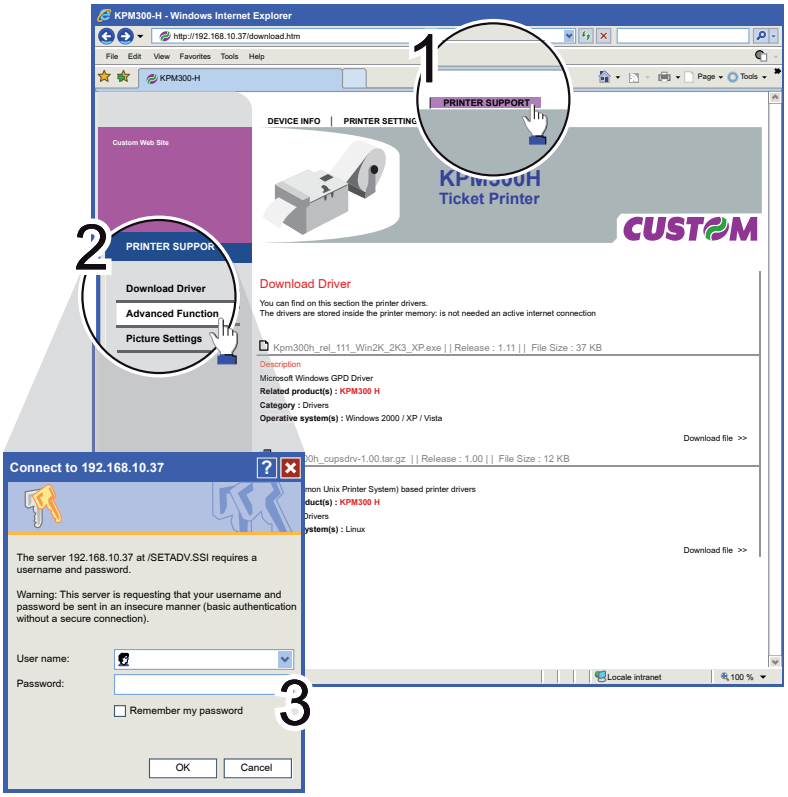


(Fig.C.7)

Test page

The tools of the "Printer Support" section, are:
- Download Driver (see par.C.4).
- Advanced Function.
- Pictures settings (see par.C.5).

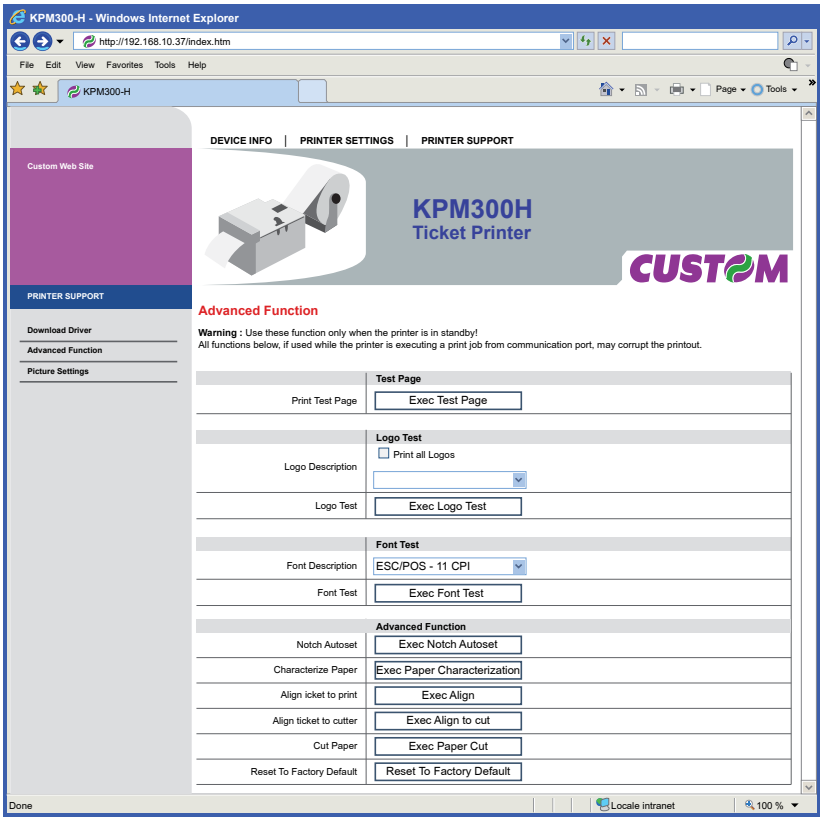
The page related to "Advanced Function" tool is a restricted one. To enter the page, it is required the identification of the user and password (see par.C.2.2).



(Fig.C.8)

After making registration and obtaining the access to the restricted area (see fig.C.8), it is possible to test some printer function (see fig.C.9), for demonstrative and service purpose, as:

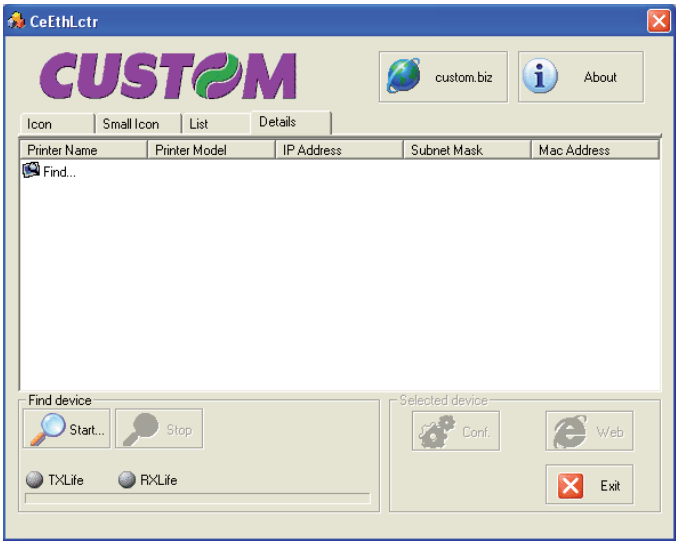
- printing a test page, the font test and the logos test;
- the self-calibration of the notch sensors and the ticket alignment;
- reset to factory default.



(Fig.C.9)

C.3 LOCATOR (only for models with Ethernet interface)

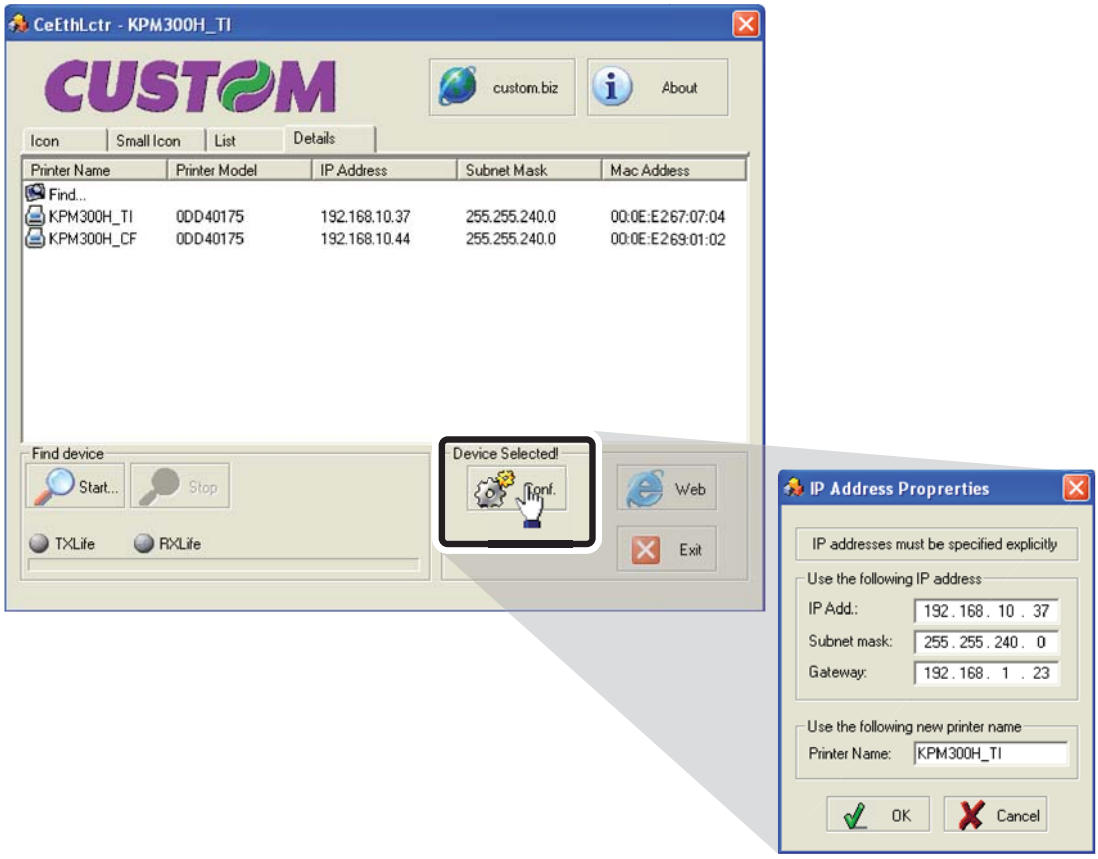
For the models with Ethernet interface, it is available an external software (see fig.C.10). The “Locator” is able to execute a search of the printers connected to the network with an Ethernet cable, without knowing the IP addresse of each printer.



(Fig.C.10)

For each printer detected, “Locator” allows to configure the following parameters (see fig.C.11):

- IP Address.
- Subnet Mask.
- Gateway.
- Printer friendly name.



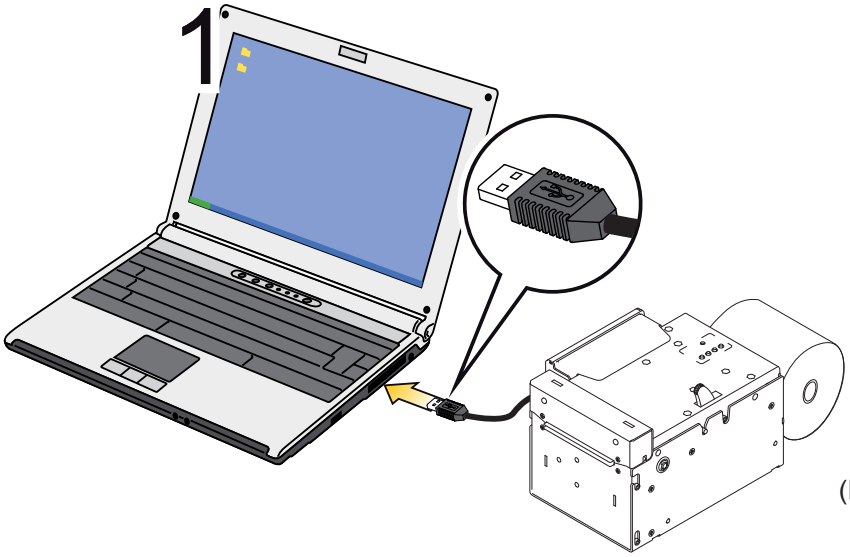
(Fig.C.11)

C.4 WINDOWS / LINUX DRIVERS

C.4.1 Driver download from Mass Storage

To install printing drivers from USB Mass Storage, proceed as follows:

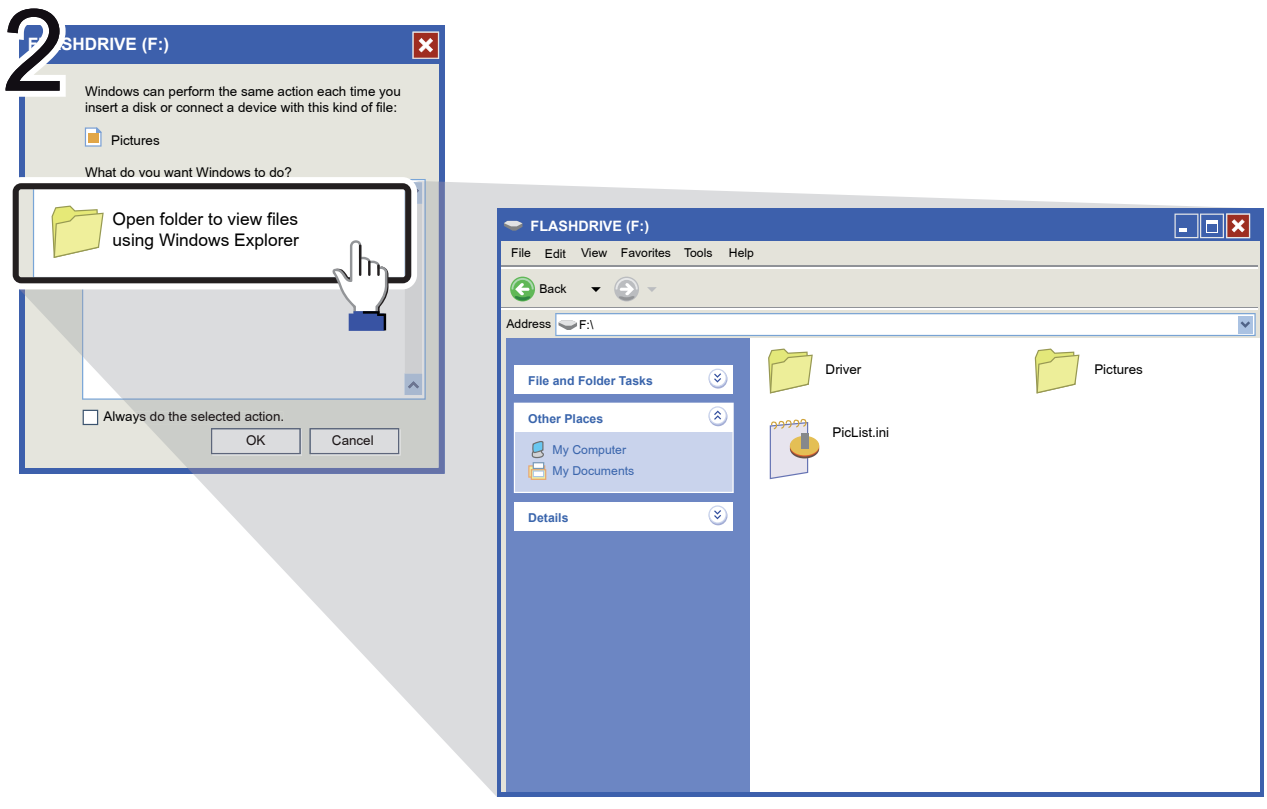
1. Connect the printer to a computer by an USB cable (see fig.C.12).



(Fig.C.12)

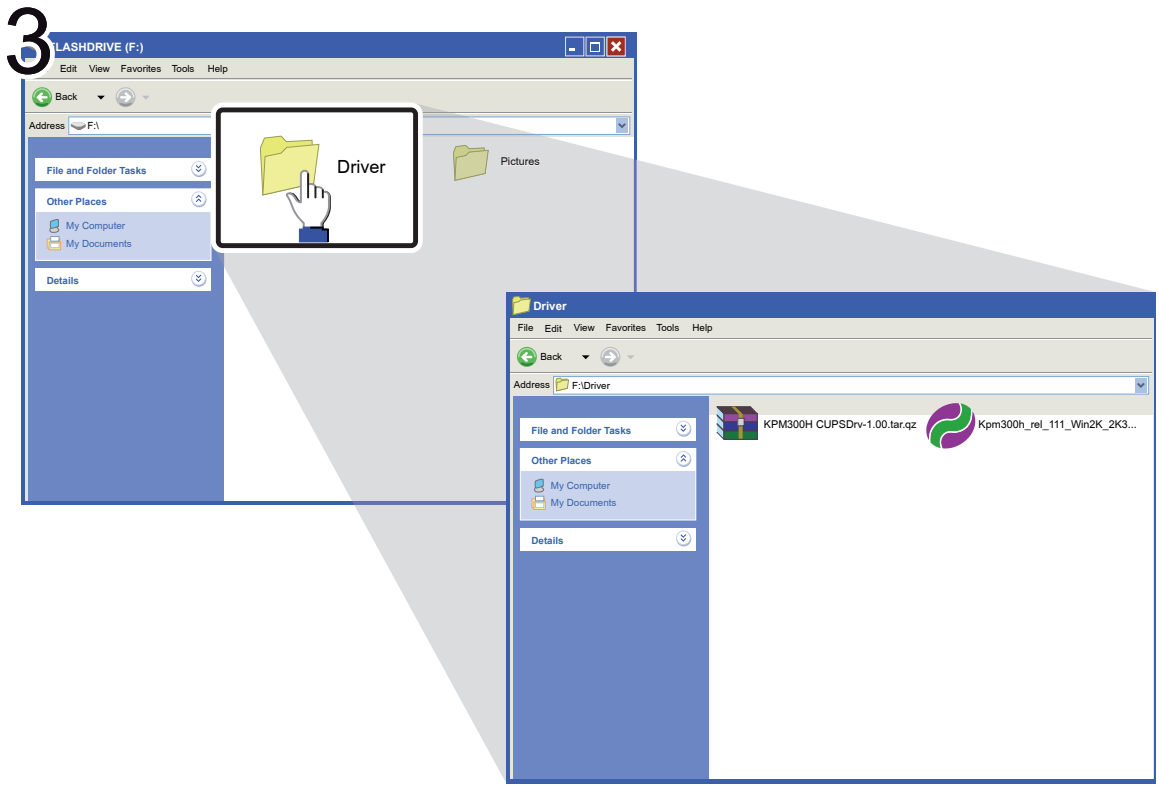
NOTE: To download drivers from USB Mass Storage, enable “USB Mass Storage” parameter into printer Set-up (see par.C.1.1).

2. Open printer’s Flash Disk and enter the internal folders (see fig.C.13).



(Fig.C.13)

3. Copy printer drivers into the “Driver” folder (see fig.C.14).

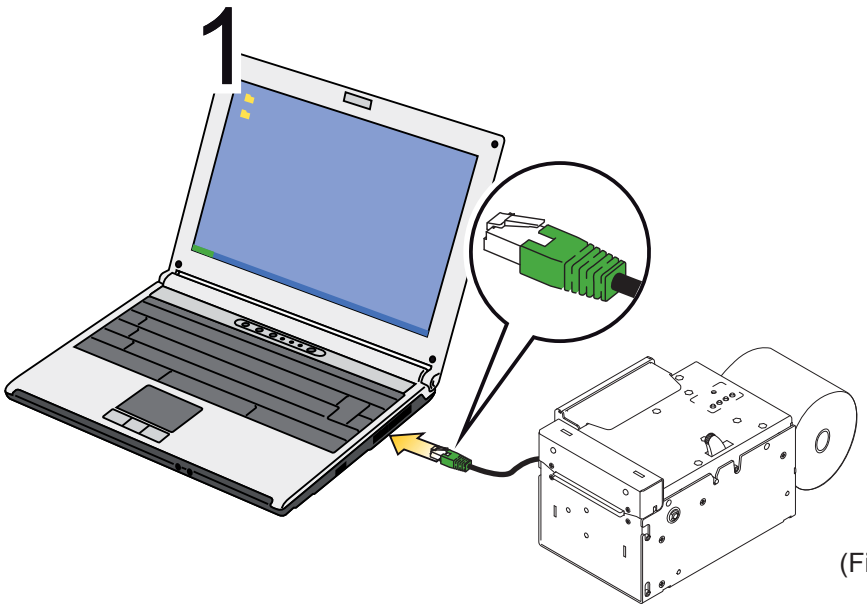


(Fig.C.14)

C.4.2 Driver download from FTP Server (Only for models with Ethernet interface)

To install printing drivers by FTP Server connection, proceed as follows:

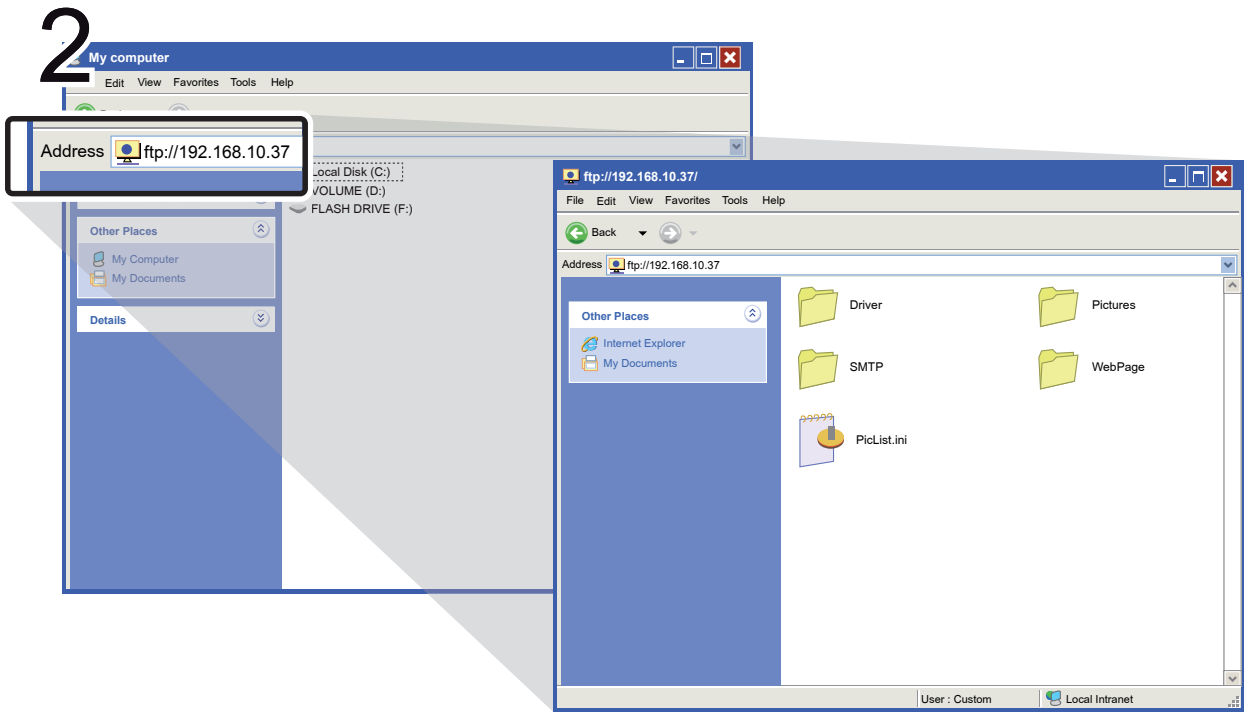
1. Connect to the network the printer and the computer (see fig.C.15).



(Fig.C.15)

NOTE: To download drivers from FTP Server, enable “FTP Server” parameter into printer Set-up (see par.C.1.2).

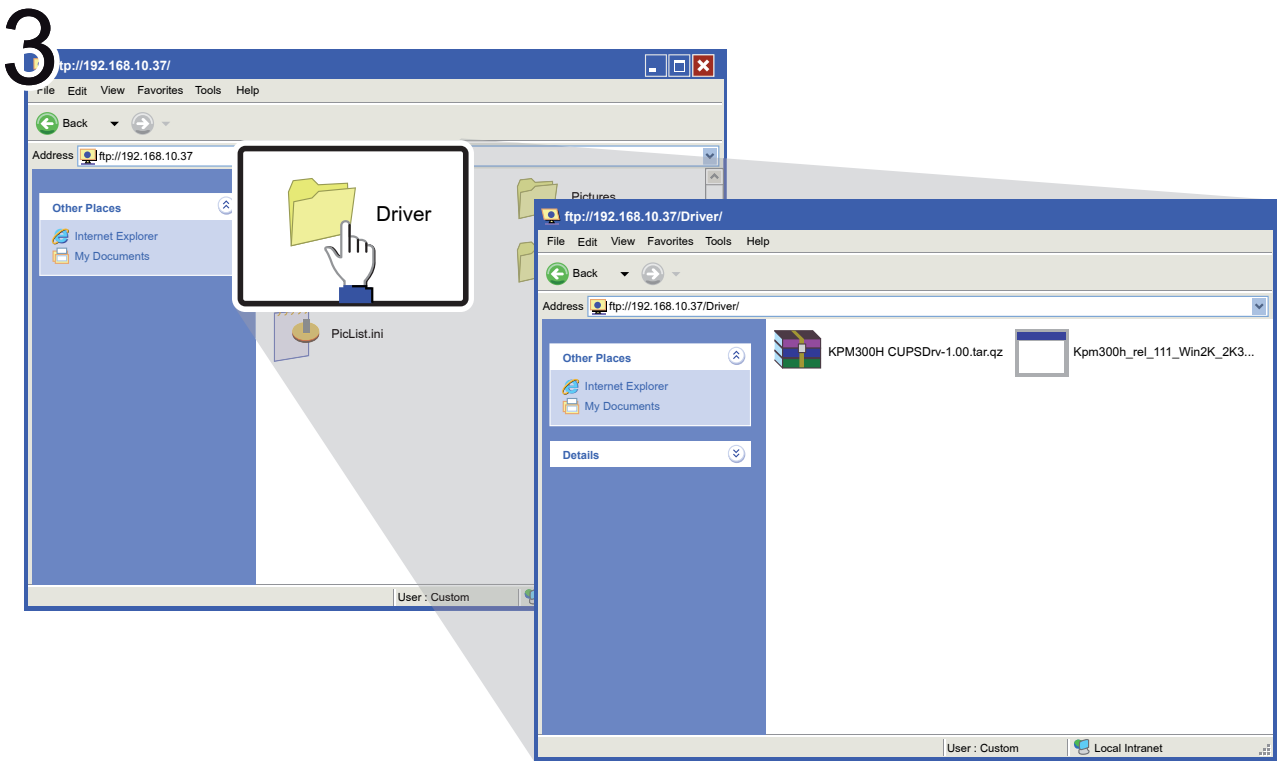
2. Type in the address bar **"ftp://"** followed by the IP address of the printer (see fig.C.16)



(Fig.C.16)

NOTE: To know the IP address of the printer, print the Set-up report of the printer (see par.1.3.1) or use "Locator" (see par.C.3).

3. Copy printing driver from the "Driver" folder (see fig.C.17) to a local folder and install it.

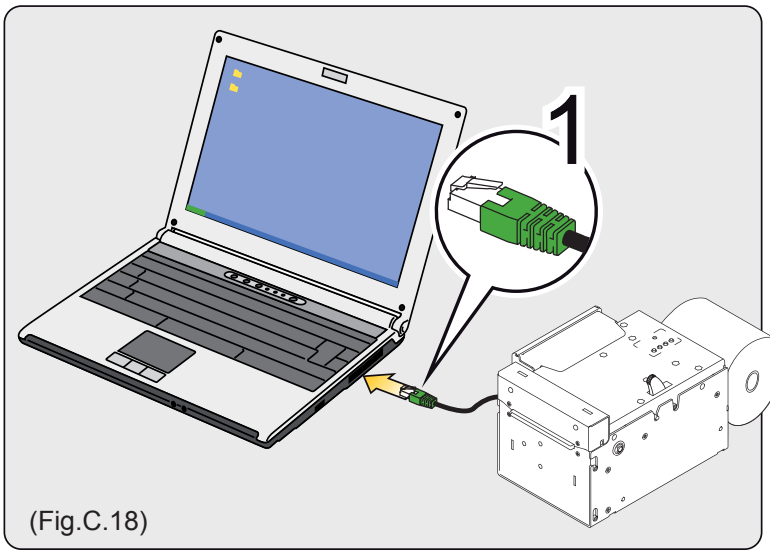


(Fig.C.17)

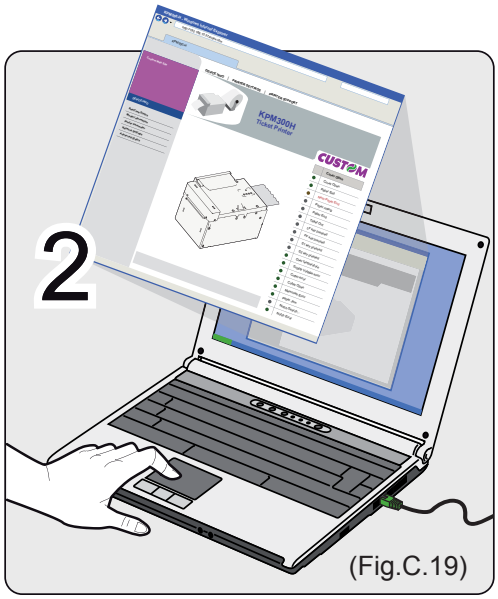
C.4.3 Driver download from Embedded Web Server (Only for models with Ethernet interface)

To download printing driver from the Embedded Web Server, proceed as follows:

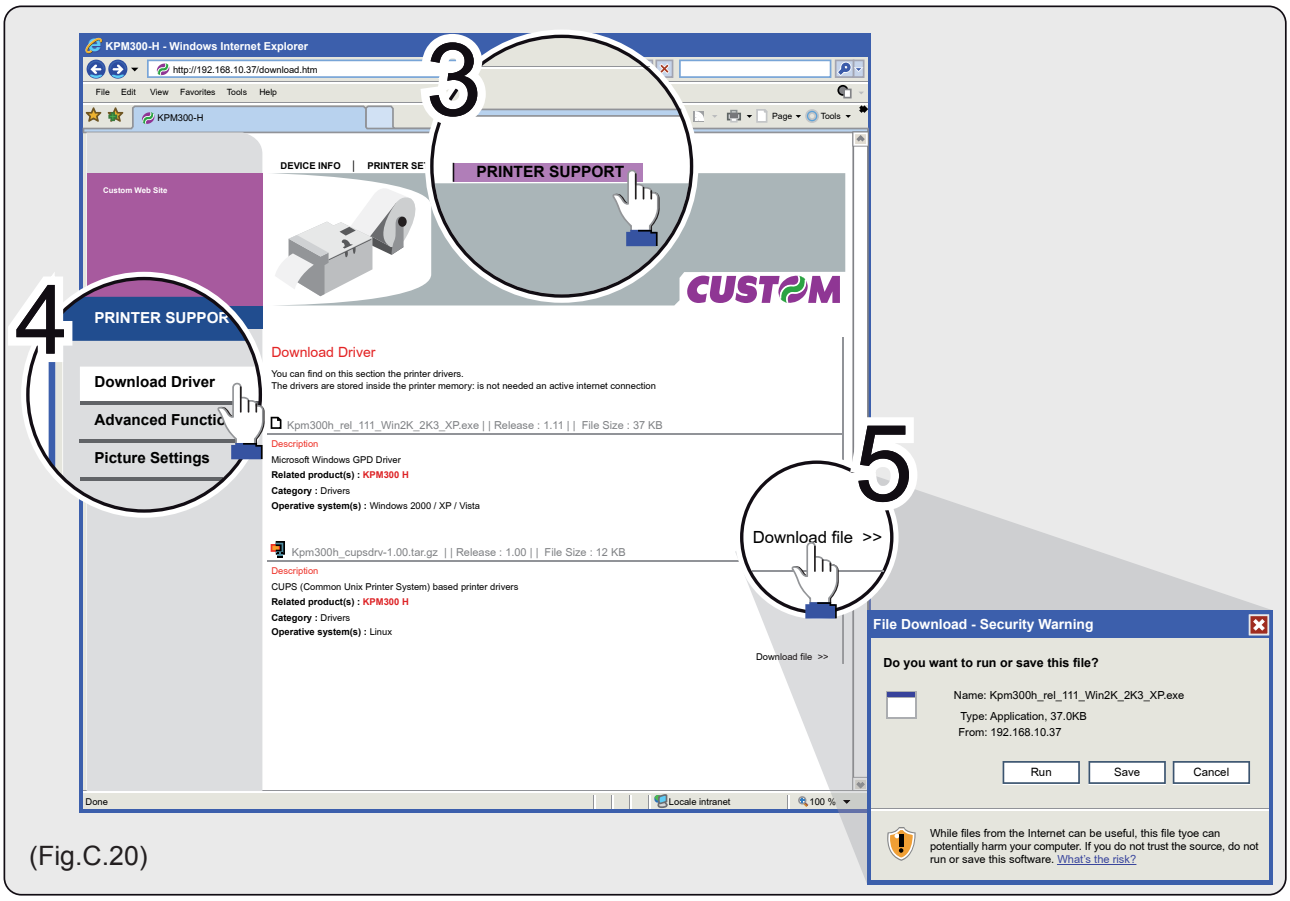
1. Connect to the network the printer and the computer (see fig.C.18).
2. Enter into the Embedded Web Server following the instruction of the par.C.2.2.
3. Enter into the “Printer Support” section (see fig.C.19)
4. Enter the page related to “Download Driver” tool (see fig.C.20)
5. Chose the printing driver and click on “Download file >>” (see fig.C.20).



(Fig.C.18)



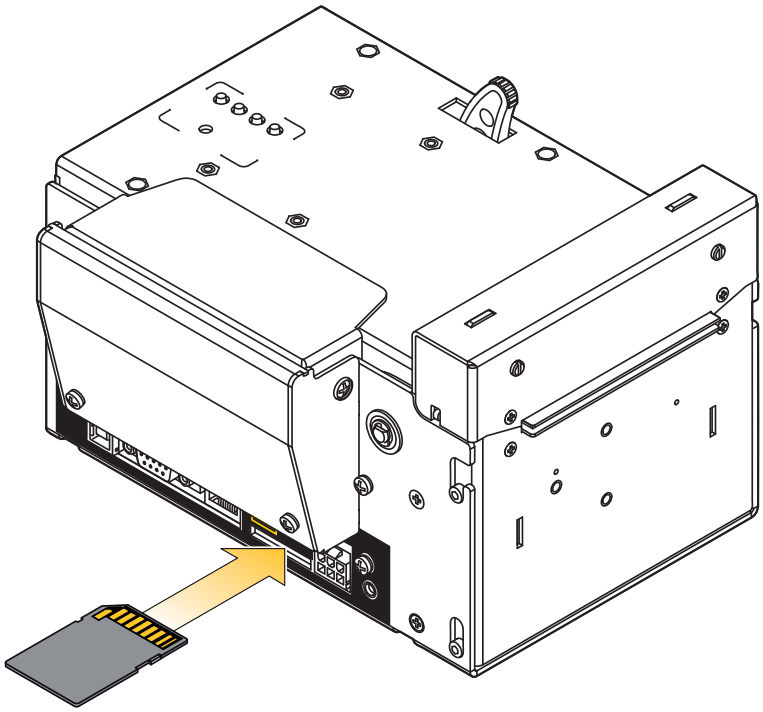
(Fig.C.19)


KPM300-H - Windows Internet Explorer
http://192.168.10.37/download.htm
3
PRINTER SUPPORT
CUSTOM
4
Download Driver
Advanced Functio
Picture Settings
You can find on this section the printer drivers.
The drivers are stored inside the printer memory: is not needed an active internet connection
Kpm300h_rel_111_Win2K_2K3_XP.exe | | Release : 1.11 | | File Size : 37 KB
Description
Microsoft Windows GPD Driver
Related product(s) : KPM300 H
Category : Drivers
Operative system(s) : Windows 2000 / XP / Vista
Kpm300h_cupsdrv-1.00.tar.gz | | Release : 1.00 | | File Size : 12 KB
Description
CUPS (Common Unix Printer System) based printer drivers
Related product(s) : KPM300 H
Category : Drivers
Operative system(s) : Linux
5
Download file >>
File Download - Security Warning
Do you want to run or save this file?
Name: Kpm300h_rel_111_Win2K_2K3_XP.exe
Type: Application, 37.0KB
From: 192.168.10.37
Run
Save
Cancel
While files from the Internet can be useful, this file tyoe can potentially harm your computer. If you do not trust the source, do not run or save this software. What's the risk?

(Fig.C.20)

C.5 LOGOS MANAGEMENT

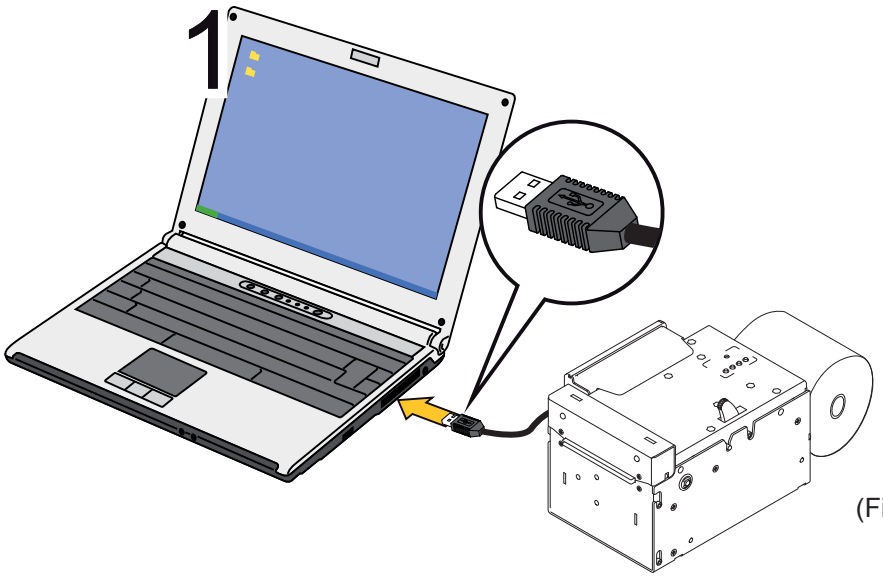
With KPM300H-TF it is possible to store new logos in addition to default logos stored on Flash Disk. The printer automatically provides to convert BMP image to the error-diffusion format in black and white.
In the models with the SD/MMC card (see fig.C.21), logos may be stored both on Flask Disk and on the Memory Card. The use of the Memory Card allows to handle more logos (however, the max number of manageable logos is limited by the RAM memory reserved for logos management).



(Fig.C.21)

C.5.1 Logos management from USB Mass Storage

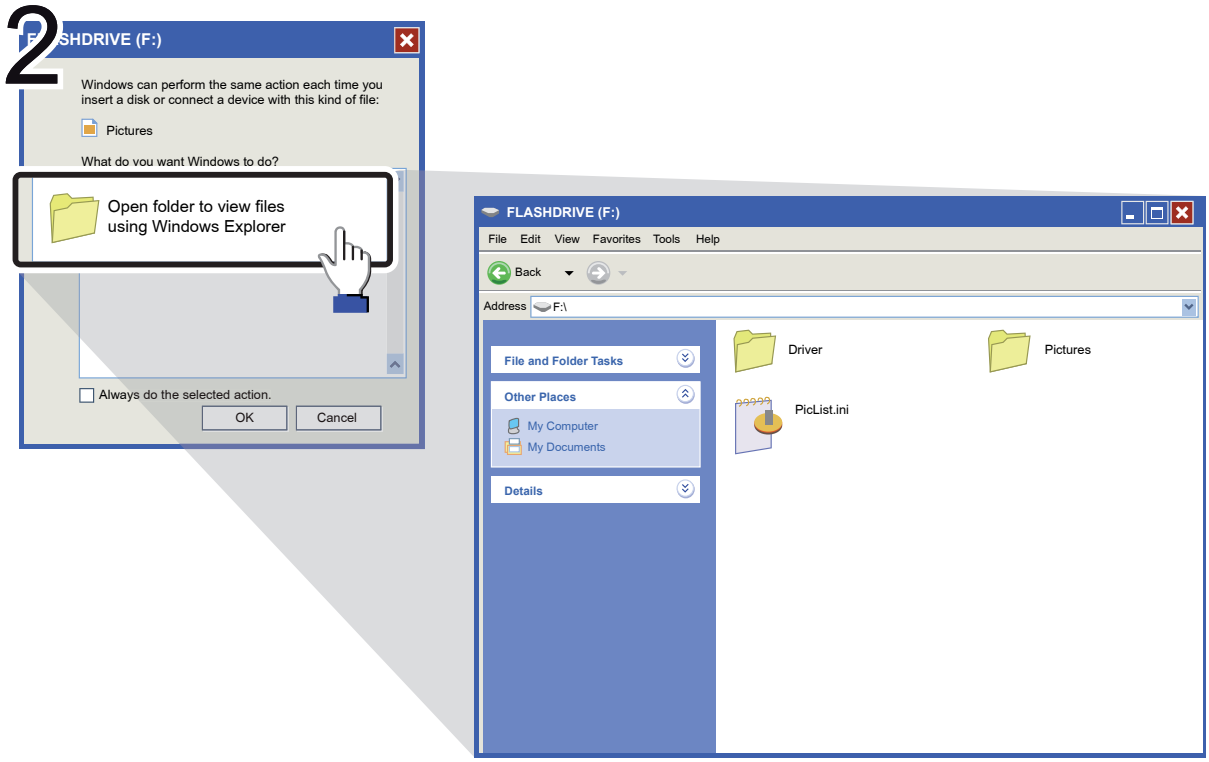
To add a new logo to the printer from USB Mass Storage, proceed as follows:
1. Connect the printer to a computer by an USB cable (see fig.C.22).



(Fig.C.22)

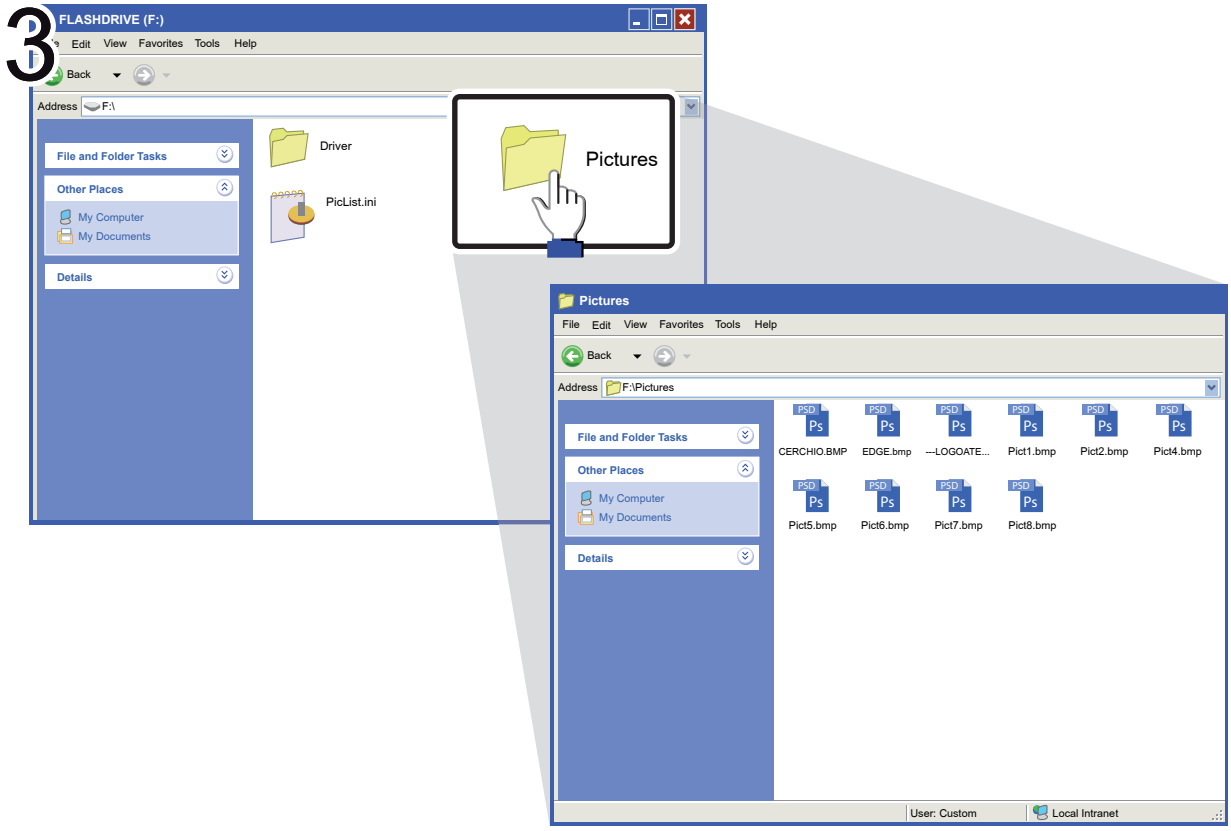
NOTE: To manage logos from USB Mass Storage, enable “USB Mass Storage” parameter into printer Set-up (see par.C.1.1).

2. Open printer's Flash Disk and enter the internal folders (see fig.C.23).



(Fig.C.23)

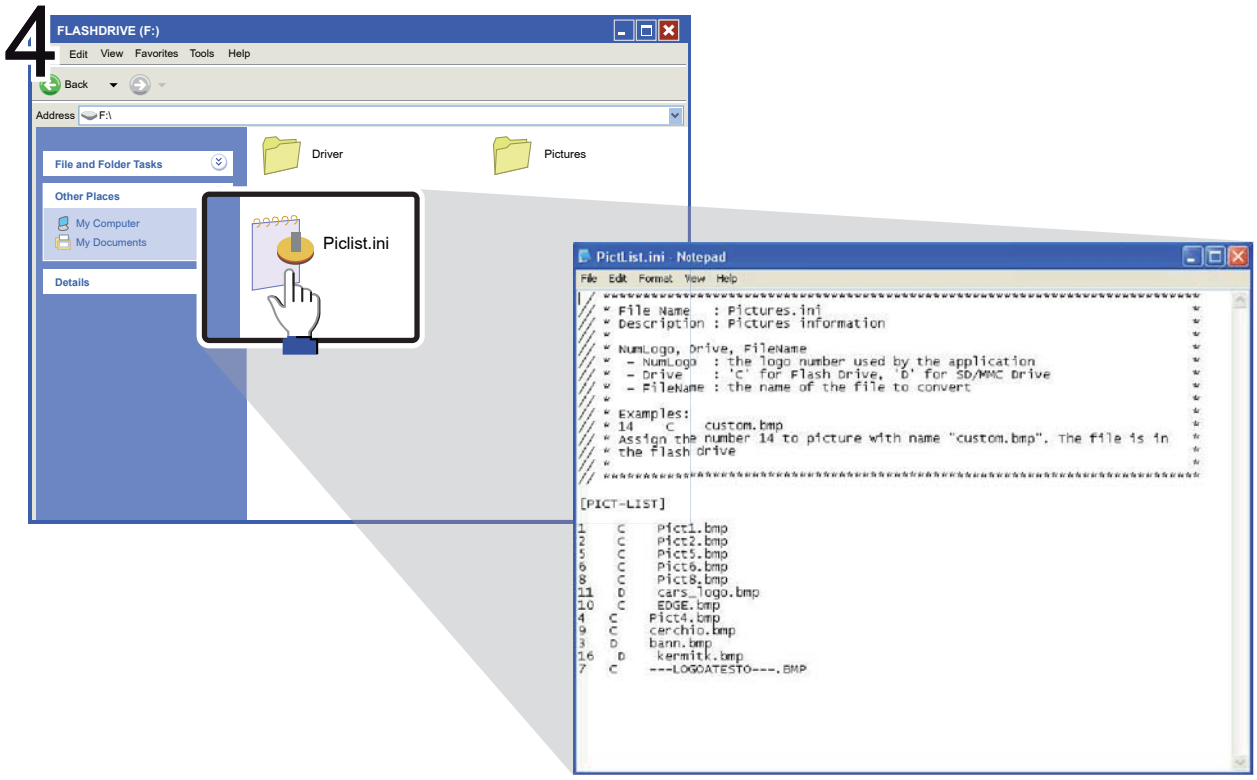
3. Copy the new logo into the "Pictures" folder (see fig.C.24).



(Fig.C.24)

NOTE: In models with SD/MMC card, it is possible to store the new logo both on SD/MMC and on Flash Disk.

4. Add to the configuration file “PictList.ini”, a line with a number associated to the logo (to be used with printer’s commands), a letter for the memory unit and the logo file name, as indicated in the instructions written inside the “PictList.ini” file (see fig.C.25).


4
FLASHDRIVE (F:)
Edit View Favorites Tools Help
Back
Address F:\
File and Folder Tasks
Other Places
My Computer
My Documents
Details
Driver
Pictures
Piclist.ini
PictList.ini - Notepad
File Edit Format View Help
// * File Name : Pictures.ini
// * Description : Pictures information
// * NumLogo, Drive, FileName
// * - NumLogo : the logo number used by the application
// * - Drive : 'C' for Flash Drive, 'D' for SD/MMC Drive
// * - FileName : the name of the file to convert
// * Examples:
// * 14 C custom.bmp
// * Assign the number 14 to picture with name "custom.bmp". The file is in the flash drive
[PICT-LIST]
1 C Pict1.bmp
2 C Pict2.bmp
5 C Pict5.bmp
6 C Pict6.bmp
8 C Pict8.bmp
11 D cars_logo.bmp
10 C EDGE.bmp
4 C Pict4.bmp
9 C cerchio.bmp
3 D bann.bmp
16 D kermitk.bmp
7 C ---LOGOATESTO---.BMP

(Fig.C.25)

ATTENTION: The configuration file “PictList.ini” on the printer’s Flash Disk, has to be modified even if the new added logo is stored on SD/MMC (only for models with SD/MMC card).

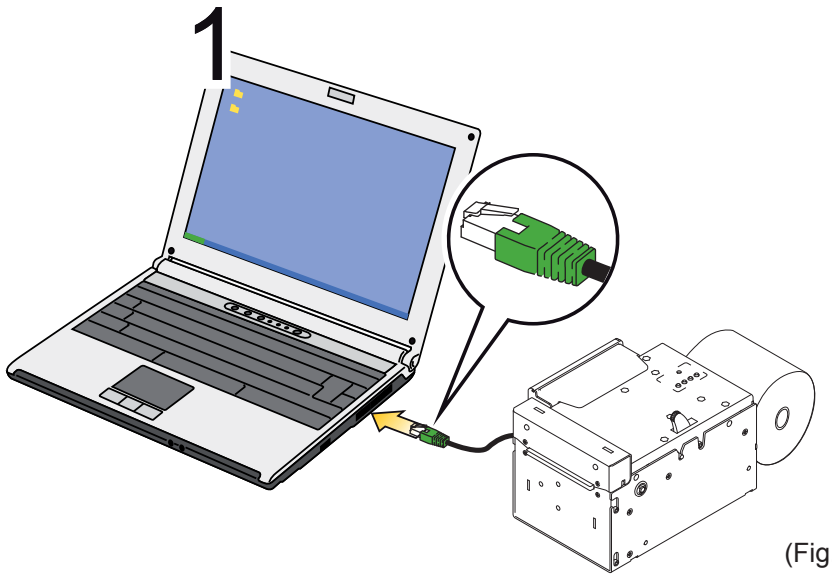
To delete a logos stored in the KPM300H-TF, proceed as follows:

1. delete the selected logo from the “Pictures” folder on Flash Disk or SD/MMC card (only in models with SD/MMC);
2. in the configuration file “PictList.ini”, delete the line related to the erased logo.

C.5.2 Logos management from FTP Server (Only for models with Ethernet interface)

To add a new logo to the printer from FTP Server, proceed as follows:

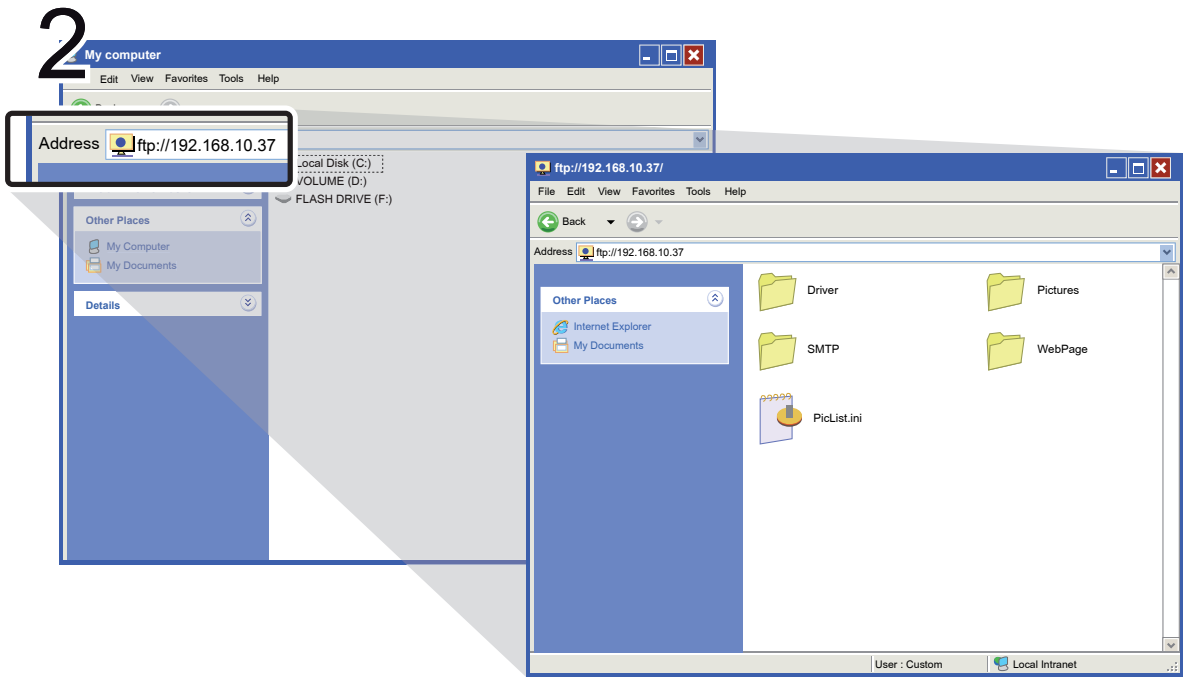
1. Connect to the network the printer and the computer (see fig.C.26).



(Fig.C.26)

NOTE: To manage logos from FTP Server, enable “FTP Server” parameter into printer Set-up (see par.C.1.2).

2. Type in the address bar **“ftp://”** followed by the IP address of the printer (see fig.C.27)

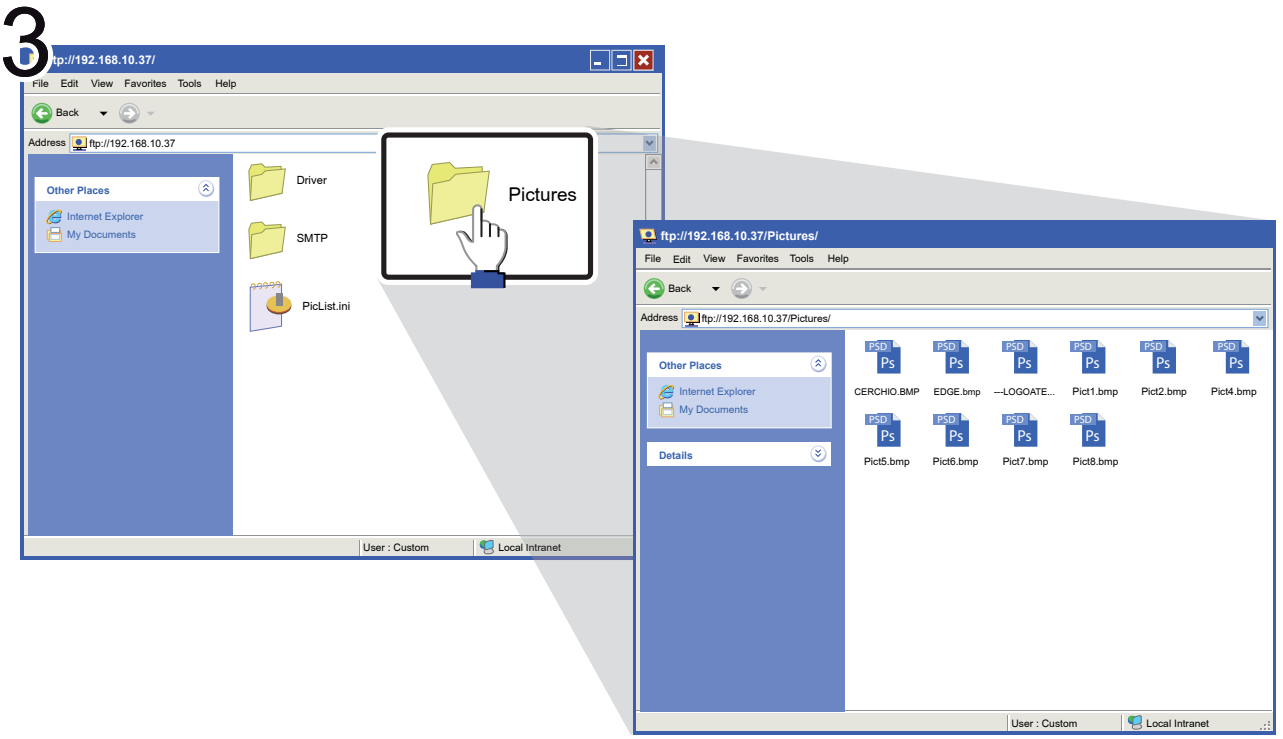


(Fig.C.27)

NOTE:

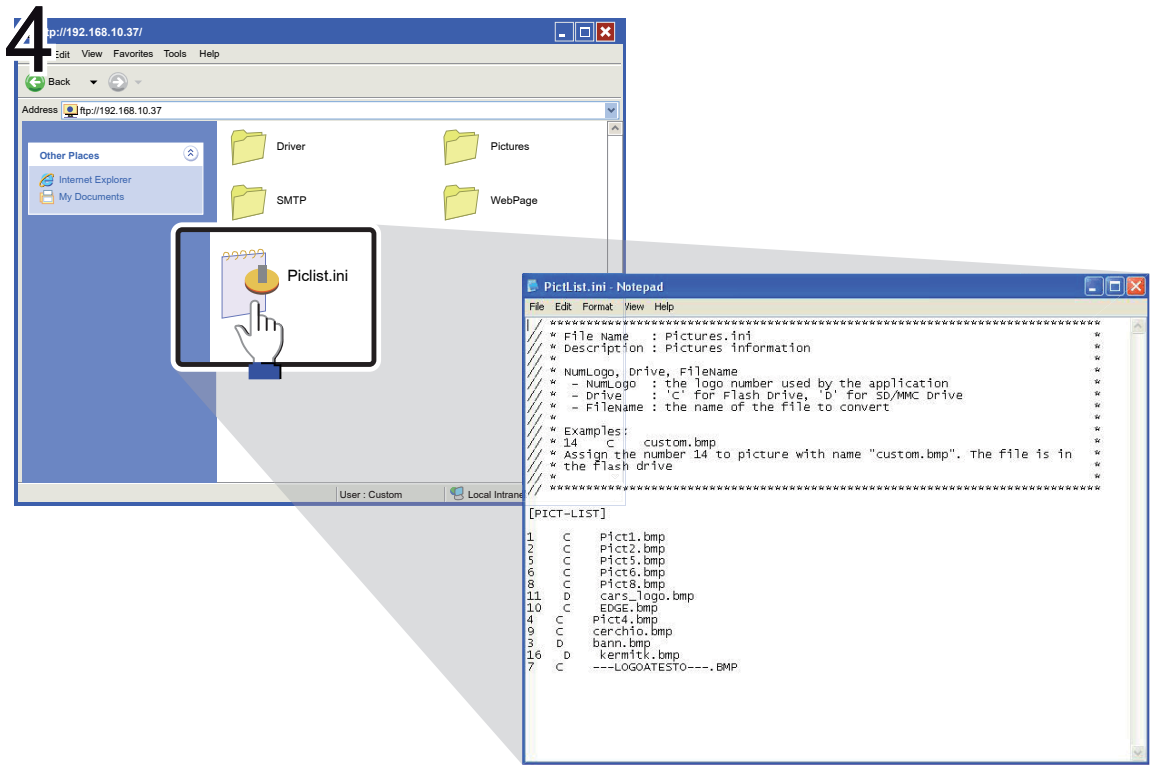
- To know the IP address of the printer, print the Set-up report of the printer (see par.1.3.1) or use “Locator” (see par.C.3).
- In models with SD/MMC, it is possible to store the new logo both on SD/MMC and on Flash Disk.

3. Copy the new logo into the “Pictures” folders (see fig.C.28).



(Fig.C.28)

4. Add to the configuration file “PictList.ini”, a line with a number associated to the logo (to be used with printer’s commands), a letter for the memory unit and the logo file name, as indicated in the instructions written inside the “PictList.ini” file (see fig.C.29).


4
Address ftp://192.168.10.37
Other Places
Internet Explorer
My Documents
Driver
SMTP
Pictures
WebPage
Piclist.ini
PictList.ini - Notepad
File Edit Format View Help
// * File Name : Pictures.ini
// * Description : Pictures information
// * NumLogo, Drive, FileName
// * - NumLogo : the logo number used by the application
// * - Drive : 'C' for Flash Drive, 'D' for SD/MMC Drive
// * - FileName : the name of the file to convert
// * Examples:
// * 14 C custom.bmp
// * Assign the number 14 to picture with name "custom.bmp". The file is in the flash drive
[PICT-LIST]
1 C Pict1.bmp
2 C Pict2.bmp
5 C Pict5.bmp
6 C Pict6.bmp
8 C Pict8.bmp
11 D cars_logo.bmp
10 C EDGE.bmp
4 C Pict4.bmp
9 C cerchio.bmp
3 D bann.bmp
16 D kermitk.bmp
7 C ---LOGOATESTO---.BMP

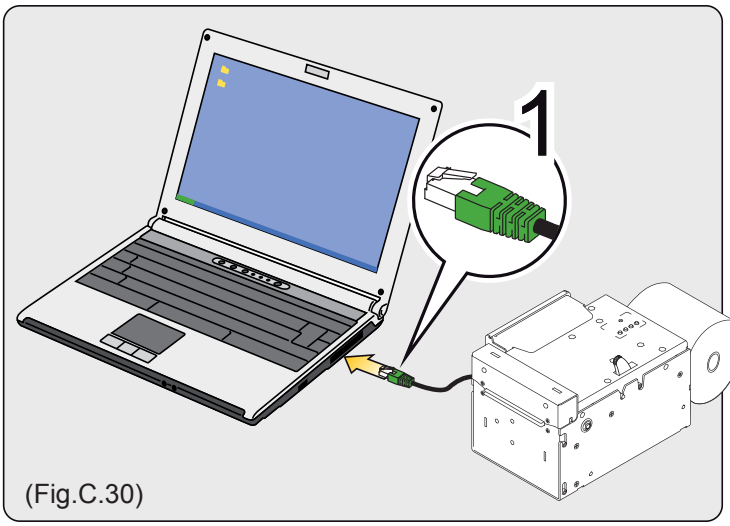
(Fig.C.29)

ATTENTION: The configuration file “PictList.ini” on the printer’s Flash Disk, has to be modified even if the new added logo is stored on SD/MMC (only for models with SD/MMC).

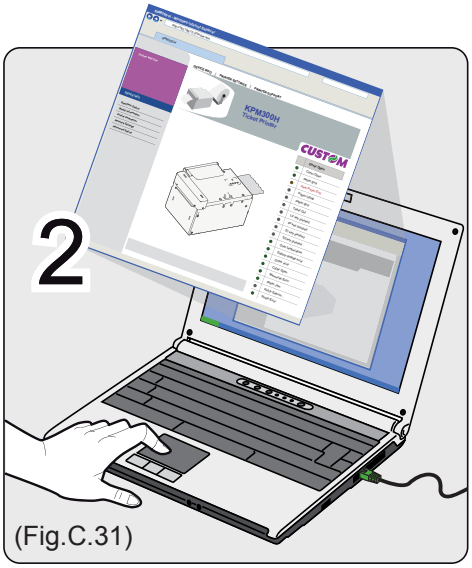
C.5.3 Logos management from Embedded Web Server (only for models with Ethernet interface)

To manage logos from the Embedded Web Server, proceed as follows:

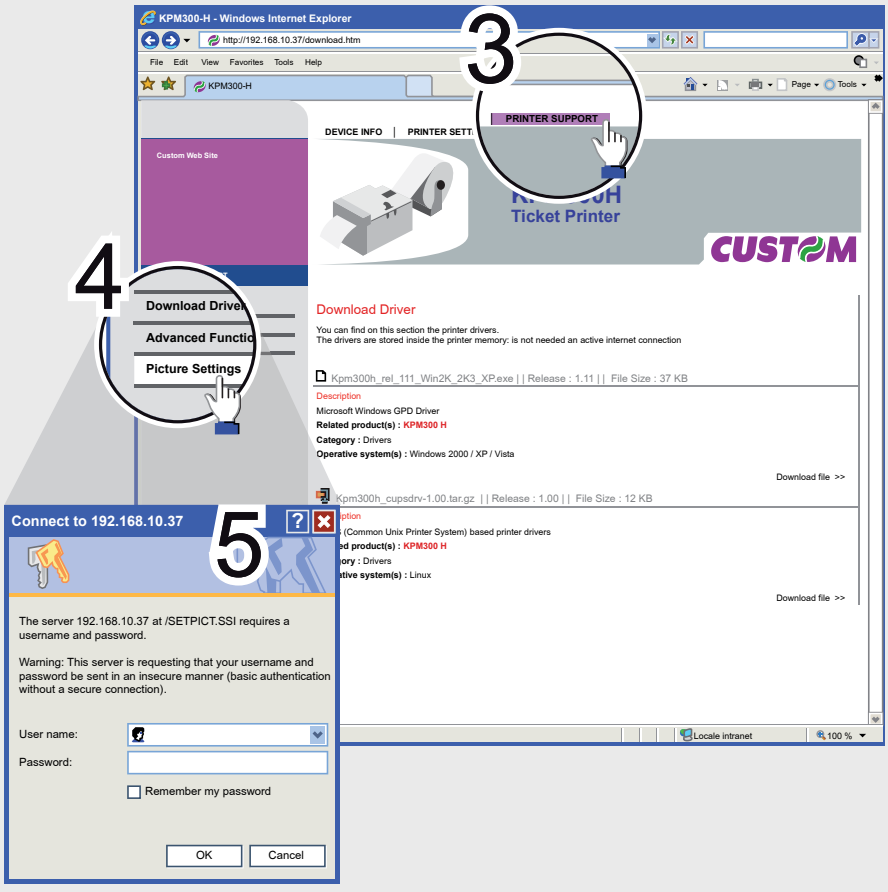
1. Connect to the network the printer and the computer (see fig.C.30).
2. Enter into the Embedded Web Server following the instruction of the par.C.2.2.
3. Enter into the “Printer Support” section (see fig.C.31)
4. Enter the page related to “Picture Settings” tool (see fig.C.32)
5. Make the registration to obtain the access to the restricted page related to the logos management (see fig.C.32).



(Fig.C.30)



(Fig.C.31)

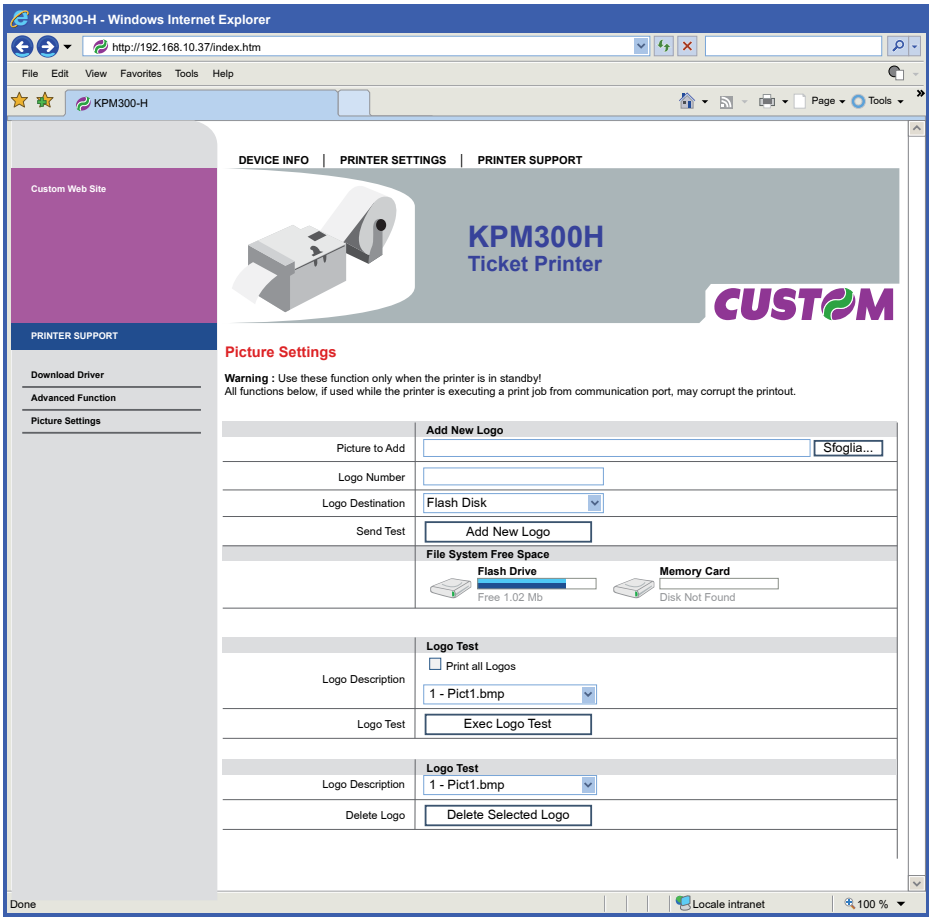

KPM300-H - Windows Internet Explorer
http://192.168.10.37/download.htm
3
PRINTER SUPPORT
DEVICE INFO
Ticket Printer
CUSTOM
4
Download Driver
Advanced Functio
Picture Settings
Download Driver
You can find on this section the printer drivers.
The drivers are stored inside the printer memory: is not needed an active internet connection
Kpm300h_rel_111_Win2K_2K3_XP.exe | | Release : 1.11 | | File Size : 37 KB
Description
Microsoft Windows GPD Driver
Related product(s) : KPM300 H
Category : Drivers
Operative system(s) : Windows 2000 / XP / Vista
Download file >>
Kpm300h_cupsdrv-1.00.tar.gz | | Release : 1.00 | | File Size : 12 KB
Download file >>
Connect to 192.168.10.37
5
The server 192.168.10.37 at /SETPICT.SSI requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name:
Password:
Remember my password
OK
Cancel

(Fig.C.32)

After making registration (see par.C.2.2), the “Printer Settings” page will be displayed (see fig.C.33). It is possible to execute the following operations:

- add a new logo, associate the added logo to an unambiguous number and select the unit memory of storage (Flash Disk or SD/MMC, for the model with SD/MMC);
- delete logos already stored into KPM300H-TF;
- execute a print with the logo test.

The new logo is automatically added to the “Pictures” folder (it will be therefore visible from Mass Storage and from FTP server too) and then converted in the proper format.



(Fig.C.33)

C.5.4 Logos printing

The logos stored into a unit memory and converted by the printer, can be printed by using the number associated to the logo during the conversion step.
The correspondence between file-name and logo-number is warrant by the configuration file “PIctList.ini” and it is verifiable with the logo test.

C.6 SETUP

In KPM300H-TF models with Ethernet interface, the printer permits the configuration of default parameters for printer and network setup by editing the “Setup.ini” file on the flash drive.

C.6.1 “Setup.ini” file

The “Setup.ini” file is a configuration file in the Flash drive of KPM300H-TF that contains all the configurable parameters listed in text format and divided into some sections (indicated in square brackets).
The available values for every parameter, are listed after the parameter name. The value marked with the symbol ‘ * ’ is the default one.
To modify printer’s parameters, change the numeric value after the name of parameters. To set the parameter to the default value, change the numeric value with the symbol D.
After editing printer’s parameter, simply save the “Setup.ini” file to make the modifies activated.

The “Setup.ini” file permits the configuration of the following parameters:

[PRINT]

Printer Emulation:	0, 1*	0 = ESC/POS™ 1 = SVELTA		
Print Mode:	0*, 1	0 = Normal 1 = Reverse		
Autofeed:	0*, 1	0 = CR disabled 1 = CR enable		
Chars / inch:	0, 1*	0 = A=11 B=15 cpi 1 = A=15 B=20 cpi		
Speed / Quality:	0, 1, 2*	0 = High Quality 1 = Normal 2 = High Speed		
Paper Width:	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14*	0 = 54 mm 1 = 56 mm 2 = 58 mm 3 = 60 mm 4 = 62 mm	5 = 64 mm 6 = 66 mm 7 = 68 mm 8 = 70 mm 9 = 72 mm	10 = 74 mm 11 = 76 mm 12 = 78 mm 13 = 80 mm 14 = 82 mm
Paper Threshold:	0, 1, 2, 3*, 4, 5, 6	0 = 30 % 1 = 40 % 2 = 50 %	3 = 60 % 4 = 70 % 5 = 80 %	6 = 90 %
Notch Position:	0*, 1, 2, 3, 4, 5, 6	0 = Disabled 1 = Low Side 2 = Up Side	3 = Low Center 4 = Up Center 5 = Tr. Side	6 = Tr. Center
Notch Threshold:	0, 1*, 2, 3, 4, 5, 6	0 = 30 % 1 = 40 % 2 = 50 %	3 = 60 % 4 = 70 % 5 = 80 %	6 = 90 %
Notch Distance [mm]				
PaperEnd Buffer Clear:	0*, 1	0 = Disabled 1 = Enabled		
Print Density:	0, 1, 2, 3, 4*, 5, 6, 7, 8	0 = - 50 % 1 = - 37 % 2 = - 25 %	3 = - 12 % 4 = 0 % 5 = + 12 %	6 = + 25 % 7 = + 37 % 8 = + 50 %

[INTERFACE]

RS232 Baud Rate:	1, 2, 3, 4, 5, 6, 7, 8*	1 = 1200 bps 2 = 2400 bps 3 = 4800 bps	4 = 9600 bps 5 = 19200 bps 6 = 38400 bps	7 = 57600 bps 8 = 115200 bps
RS232 Data Length:	0*, 1	0 = 8 bits/chr 1 = 7 bits/chr		
RS232 Parity:	0*, 1, 2	0 = None 1 = Even 2 = Odd		
RS232 Handshaking:	0*, 1	0 = Xon/Xoff 1 = Hardware		
Busy Condition:	0*, 1	0 = RxFull 1 = OffLine/RxFull		
USB Mass Storage:	0*, 1	0 = Disabled 1 = Enabled		
USB Address Number:	0*, 1, 2, 3, 4, 5, 6, 7, 8, 9	0 = 0 1 = 1 2 = 2 3 = 3	4 = 4 5 = 5 6 = 6 7 = 7	8 = 8 9 = 9

[SVELTA]

Ticket X Dimension
Ticket Y Dimension
Notch Distance
Notch Width
Barcode Timeout
Ticket Offset X
Ticket Offset Y

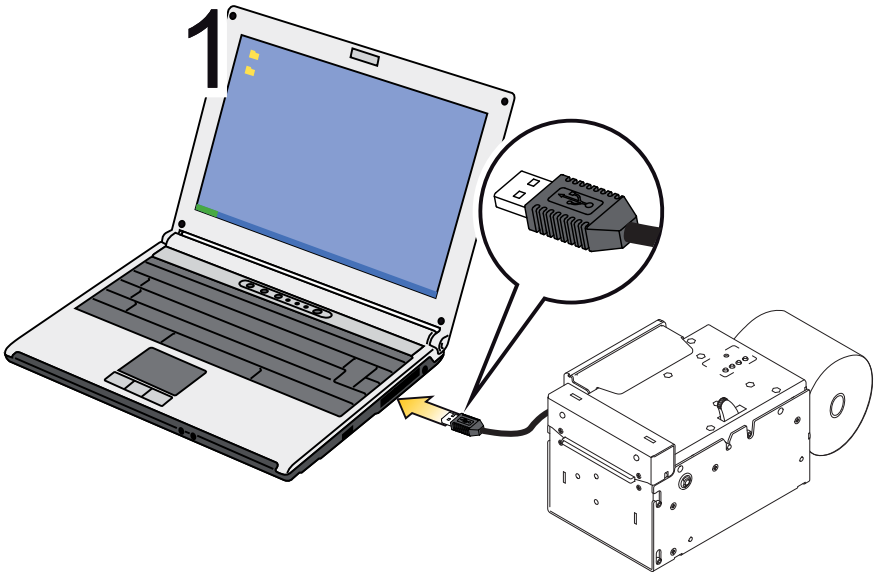
[NETWORK]

DHCP Client:	0*, 1	0 = Disabled 1 = Enabled
FTP Server:	0*, 1	0 = Disabled 1 = Enabled
IP Address		
Subnet Mask		
Default Gateway		
Domain Name System		
TCP Printer Port		
MAC Address *(Read only)*		

C.6.2 Enter Setup mode from USB Mass Storage

To configure printer and network parameters from USB Mass Storage, proceed as follows:

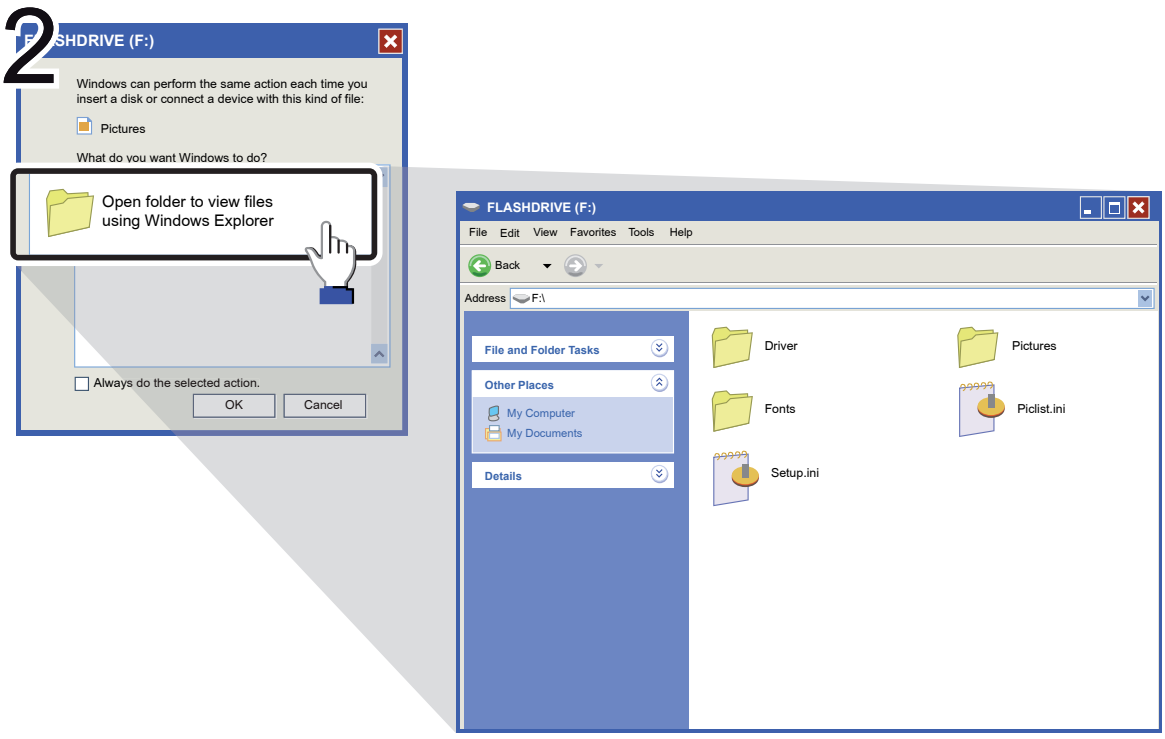
1. Connect the printer to a computer by an USB cable (see fig.C.34).



(Fig.C.34)

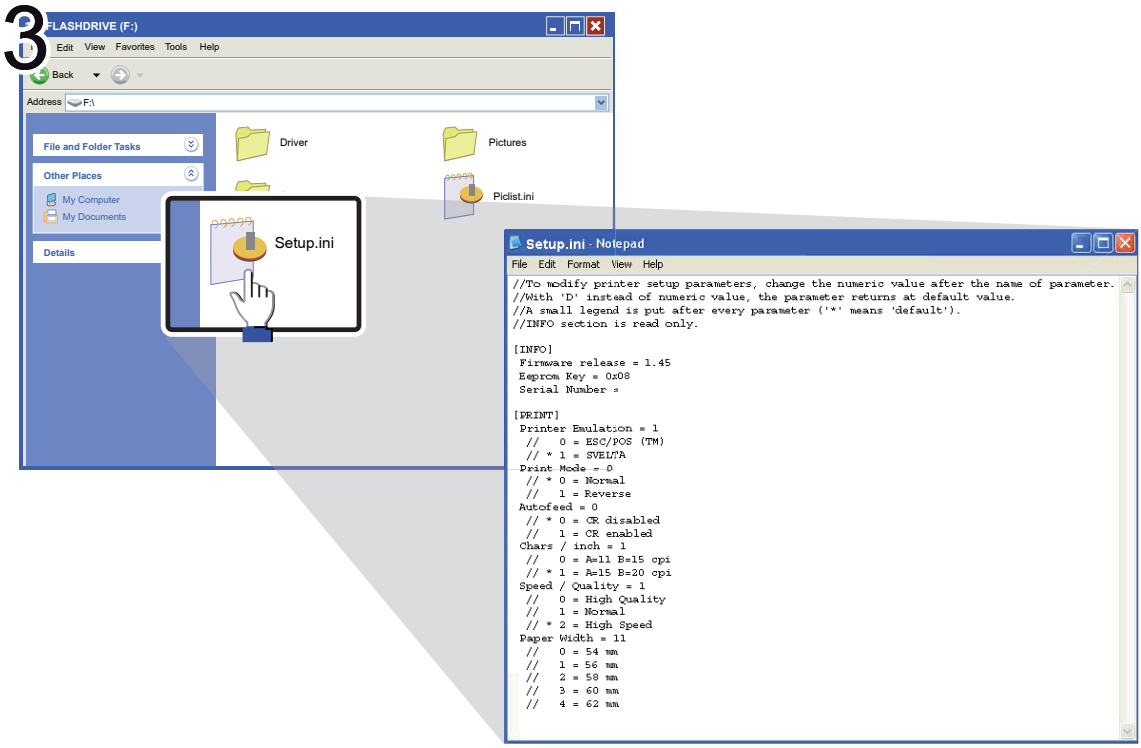
NOTE: To configure printer and network parameters from USB Mass Storage, enable “USB Mass Storage” parameter into printer Set-up (see par.C.1.1).

2. Open the printer’s Flash Disk (see fig.C.35).



(Fig.C.35)

3. Open the “Setup.ini” file (see fig.C.36).


3
FLASHDRIVE (F:)
Edit View Favorites Tools Help
Back
Address F:\
File and Folder Tasks
Other Places
My Computer
My Documents
Details
Driver
Pictures
Piclist.ini
Setup.ini
Setup.ini - Notepad
File Edit Format View Help
//To modify printer setup parameters, change the numeric value after the name of parameter.
//With 'D' instead of numeric value, the parameter returns at default value.
//A small legend is put after every parameter ('*' means 'default').
//INFO section is read only.
[INFO]
Firmware release = 1.45
Eeprom Key = 0x08
Serial Number =
[PRINT]
Printer Emulation = 1
// 0 = ESC/POS (TM)
// * 1 = SVELTA
Print Mode = 0
// * 0 = Normal
// 1 = Reverse
Autofeed = 0
// * 0 = CR disabled
// 1 = CR enabled
Chars / inch = 1
// 0 = A=11 B=15 cpi
// * 1 = A=15 B=20 cpi
Speed / Quality = 1
// 0 = High Quality
// 1 = Normal
// * 2 = High Speed
Paper Width = 11
// 0 = 54 mm
// 1 = 56 mm
// 2 = 58 mm
// 3 = 60 mm
// 4 = 62 mm

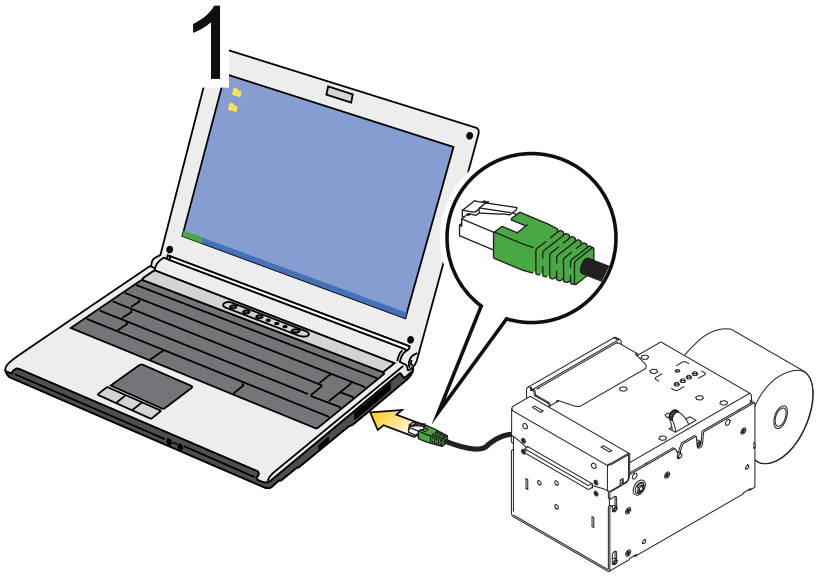
(Fig.C.36)

4. Modify the printer’s parameters (see par.C.6.1). Save and close the “Setup.ini” file.

C.6.3 Enter Setup mode from FTP Server (Only for models with Ethernet interface)

To configure printer and network parameters from FTP Server, proceed as follows:

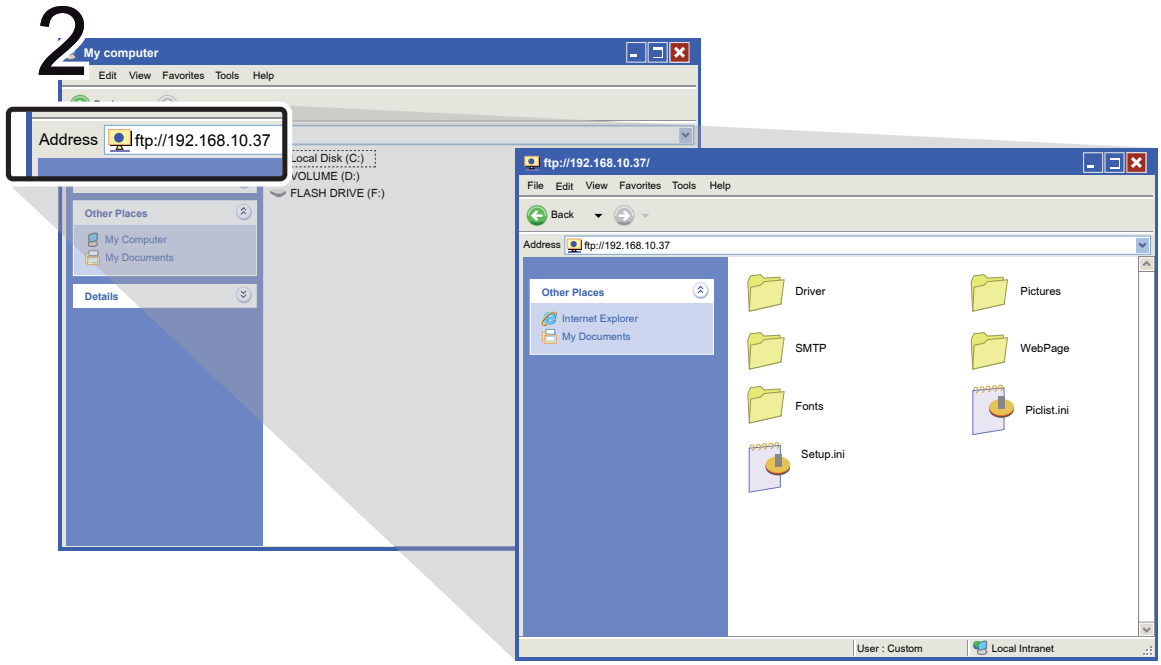
1. Connect to the network the printer and the computer (see fig.C.37).



(Fig.C.37)

NOTE: To configure parameters from FTP Server, enable “FTP Server” parameter into printer Set-up (see par.C.1.2).

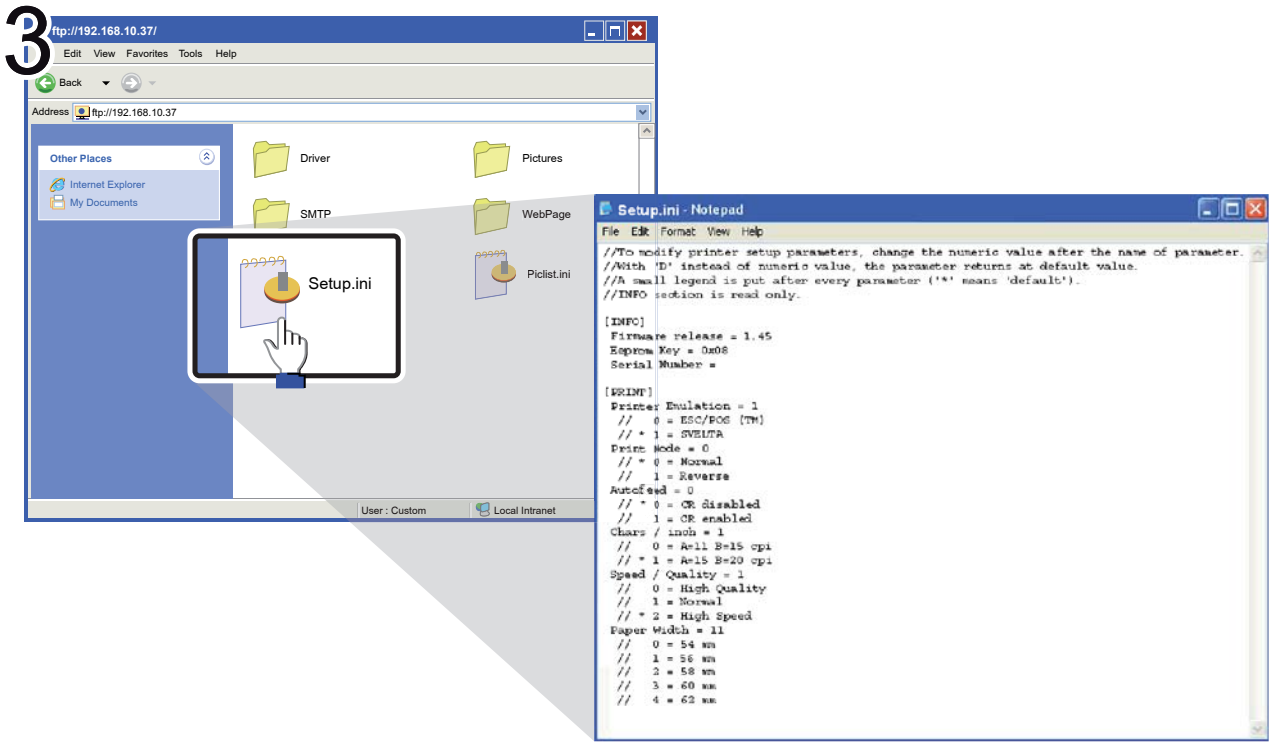
2. Type in the address bar **"ftp://"** followed by the IP address of the printer (see fig.C.38)



(Fig.C.38)

NOTE:
- To know the IP address of the printer, print the Set-up report of the printer (see par.1.3.1) or use "Locator" (see par.C.3).

3. Open the "Setup.ini" file (see fig.C.39).

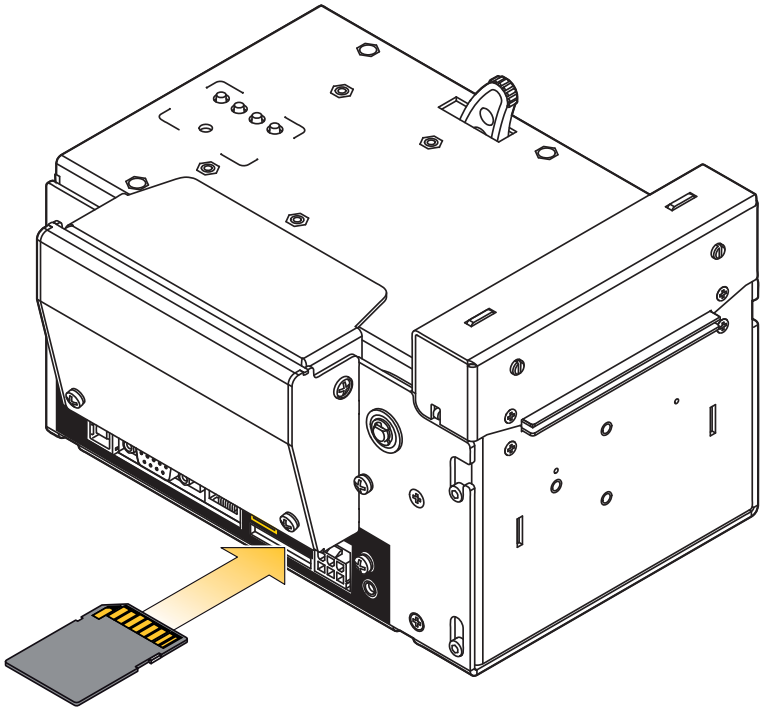

3
ftp://192.168.10.37/
Edit View Favorites Tools Help
Back
Address ftp://192.168.10.37
Other Places
Internet Explorer
My Documents
Driver
Pictures
SMTP
WebPage
Piclist.ini
Setup.ini
User : Custom
Local Intranet
Setup.ini - Notepad
File Edit Format View Help
//To modify printer setup parameters, change the numeric value after the name of parameter.
//With 'D' instead of numeric value, the parameter returns at default value.
//A small legend is put after every parameter ('*' means 'default').
//INFO section is read only.
[INFO]
Firmware release = 1.45
Eeprom Key = 0x08
Serial Number =
[PRINT]
Printer Emulation = 1
// 0 = ESC/POS (TM)
// * 1 = SVELTA
Print Mode = 0
// * 0 = Normal
// 1 = Reverse
Autofeed = 0
// * 0 = CR disabled
// 1 = CR enabled
Chars / Inch = 1
// 0 = A=11 B=15 cpi
// * 1 = A=15 B=20 cpi
Speed / Quality = 1
// 0 = High Quality
// 1 = Normal
// * 2 = High Speed
Paper Width = 11
// 0 = 54 mm
// 1 = 56 mm
// 2 = 58 mm
// 3 = 60 mm
// 4 = 62 mm

(Fig.C.39)

4. Modify the printer's parameters (see par.C.6.1). Save and close the "Setup.ini" file.

C.7 FONTS MANAGEMENT

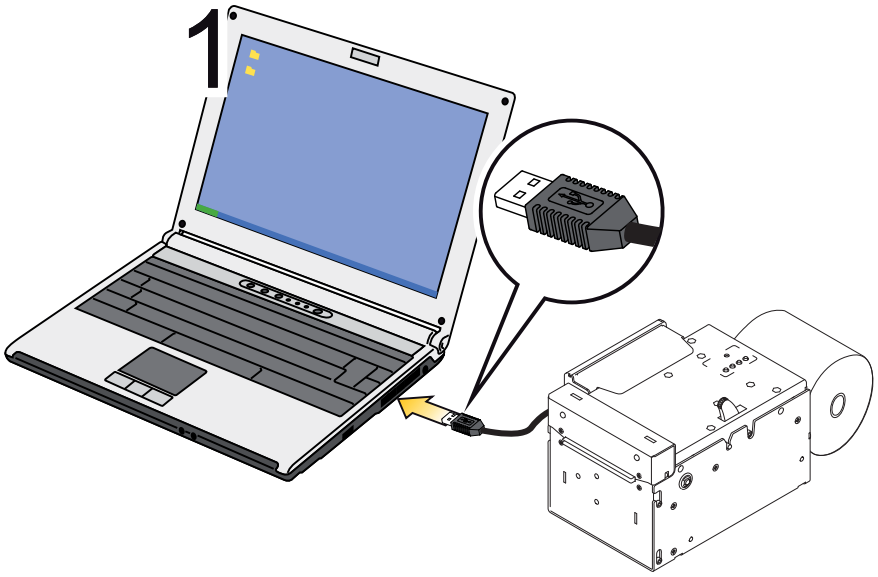
With KPM300H-TF it is possible to store new fonts in addition to default fonts stored on Flash Disk.
In models with the SD/MMC card (see fig.C.40), fonts may be stored both on Flash Disk and on the Memory Card. The use of the Memory Card allows to handle more fonts (however, the max number of manageable logos is limited by the RAM memory reserved for logos management).



(Fig.C.40)

C.7.1 Fonts management from USB Mass Storage

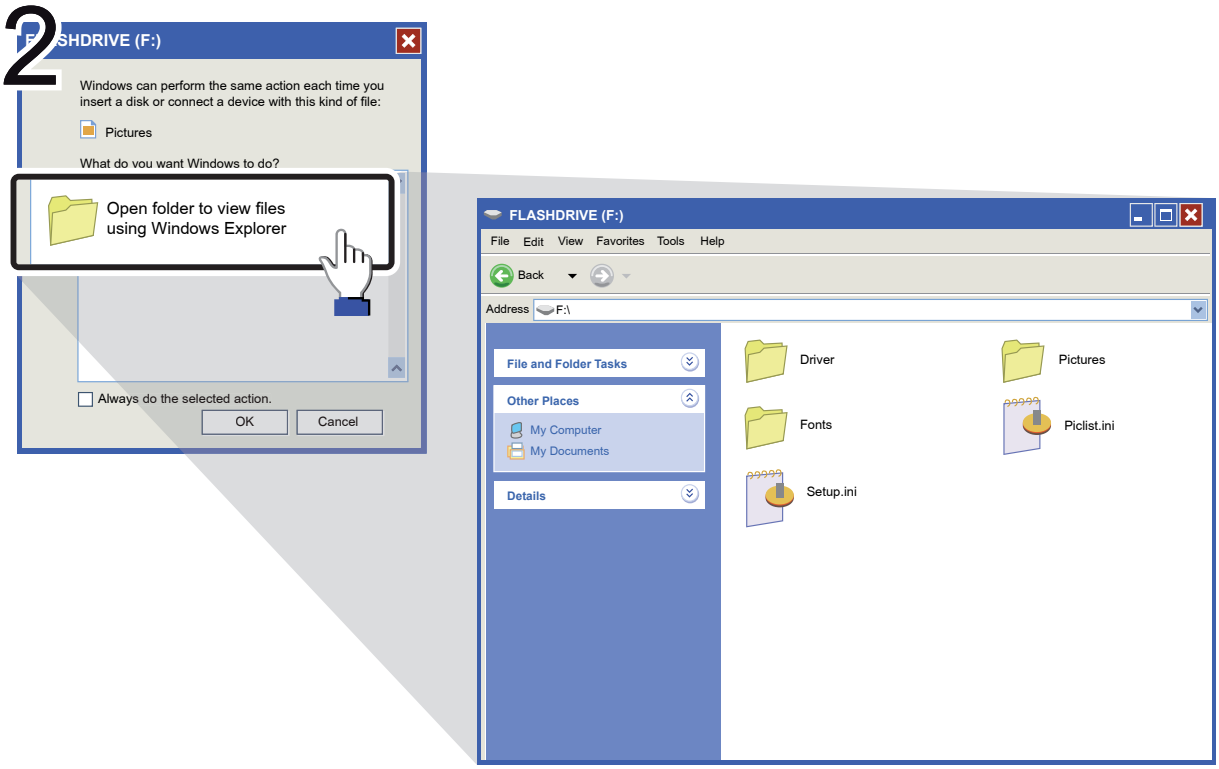
To add a new font to the printer from USB Mass Storage, proceed as follows:
1. Connect the printer to a computer by an USB cable (see fig.C.41).



(Fig.C.41)

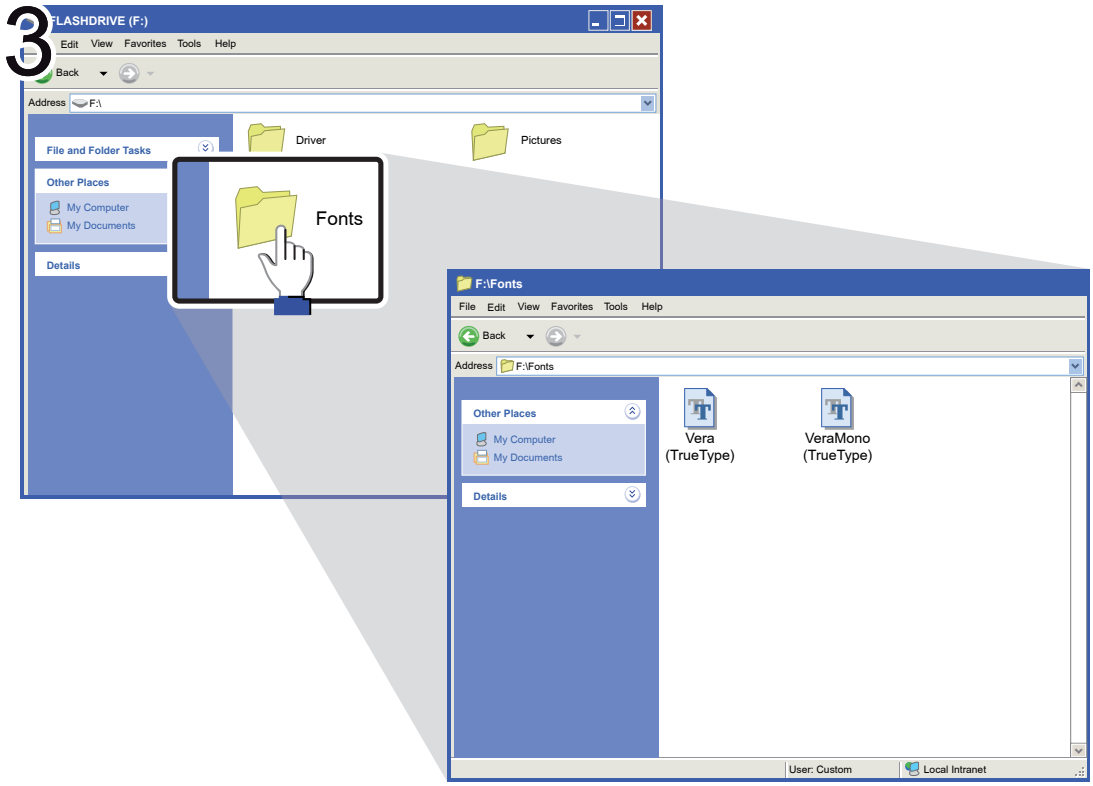
NOTE: To manage fonts from USB Mass Storage, enable “USB Mass Storage” parameter into printer Set-up (see par.C.1.1).

2. Open printer's Flash Disk and enter the internal folders (see fig.C.42).



(Fig.C.42)

3. Copy the new font into the "Fonts" folder (see fig.C.43).



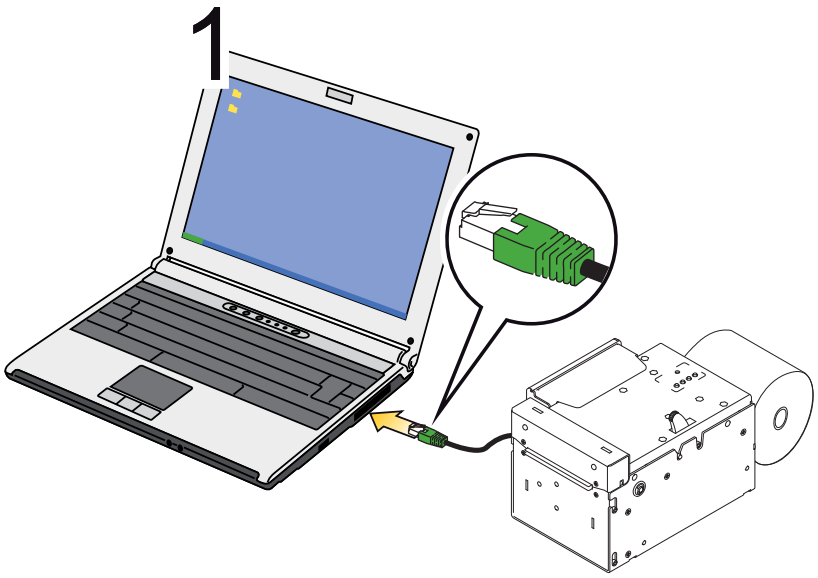
(Fig.C.43)

NOTE: In models with SD/MMC card, it is possible to store the new logo both on SD/MMC and on Flash Disk.

C.7.2 Fonts management from FTP Server (Only for models with Ethernet interface)

To add a new font to the printer from FTP Server, proceed as follows:

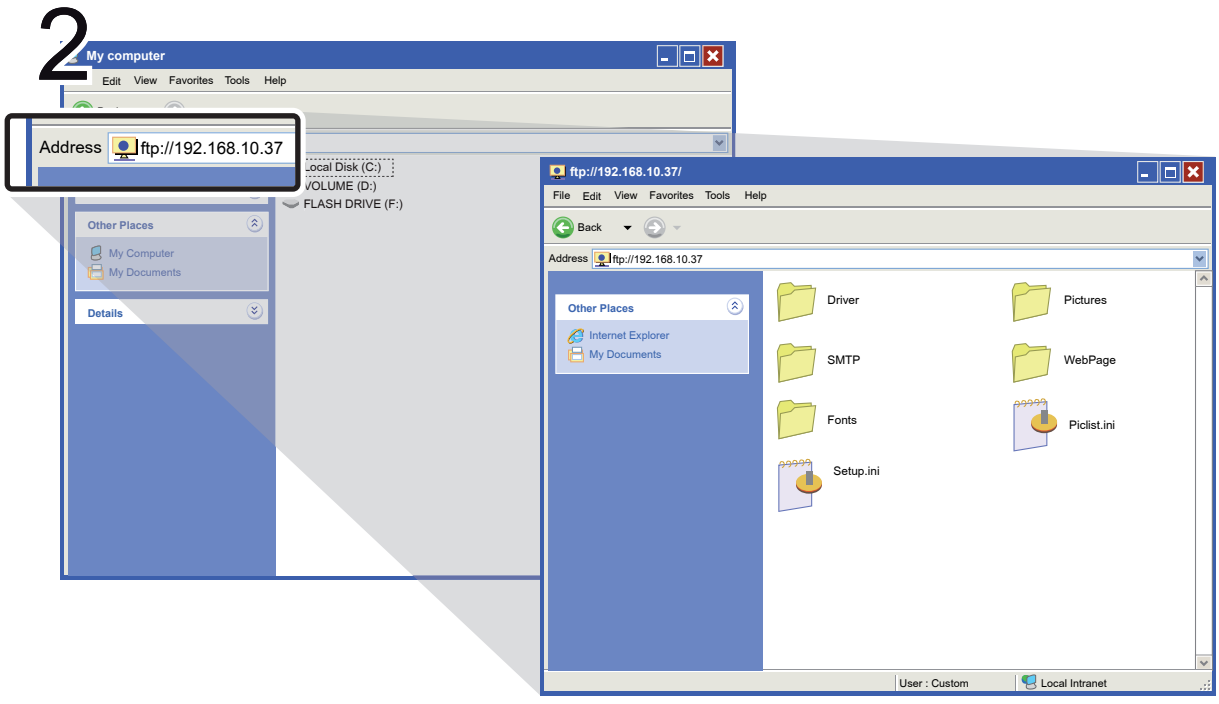
1. Connect to the network the printer and the computer (see fig.C.44).



(Fig.C.44)

NOTE: To manage fonts from FTP Server, enable “FTP Server” parameter into printer Set-up (see par.C.1.2).

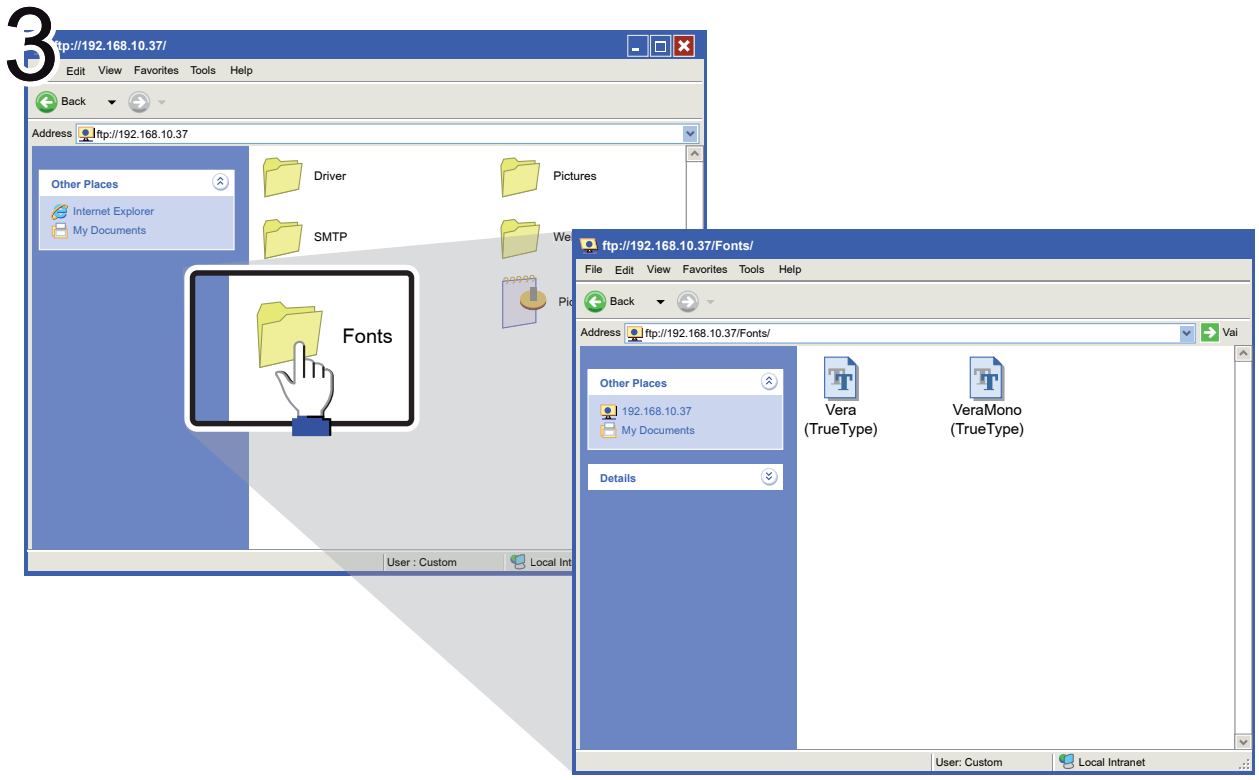
2. Type in the address bar **“ftp://”** followed by the IP address of the printer (see fig.C.45)



(Fig.C.45)

NOTE:
- To know the IP address of the printer, print the Set-up report of the printer (see par.1.3.1) or use “Locator” (see par.C.3).
- In models with SD/MMC, it is possible to store the new font both on SD/MMC and on Flash Disk.

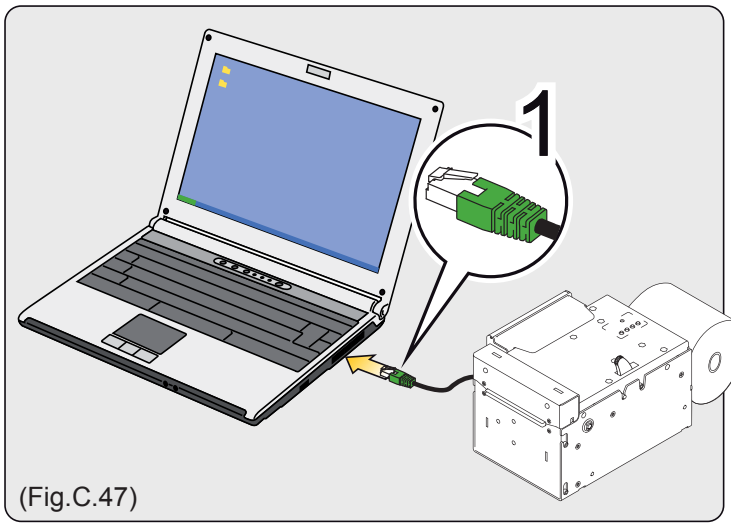
3. Copy the new font into the “Font” folders (see fig.C.46).



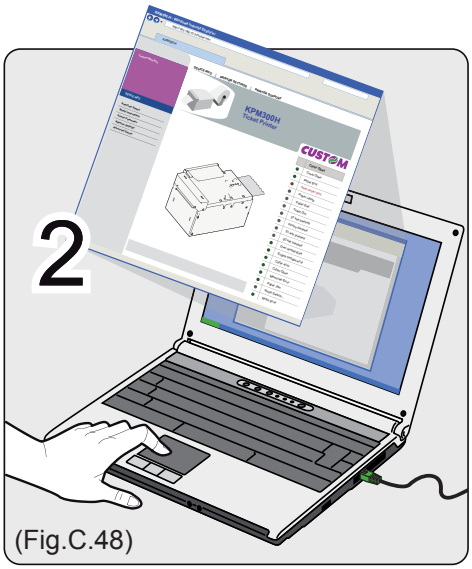
(Fig.C.46)

C.7.3 Fonts management from Embedded Web Server (only for models with Ethernet interface)

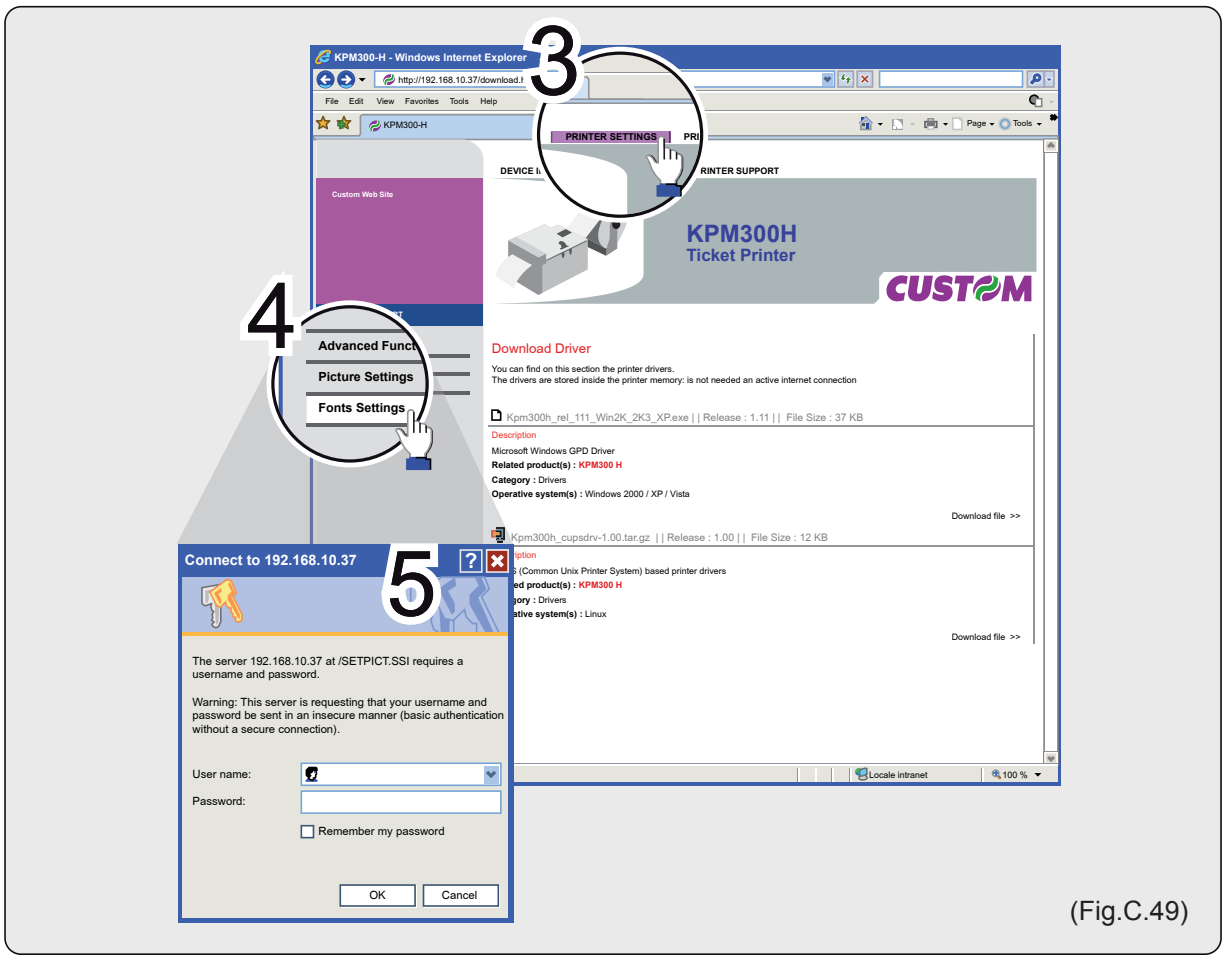
To manage fonts from the Embedded Web Server, proceed as follows:
1. Connect to the network the printer and the computer (see fig.C.47).
2. Enter into the Embedded Web Server following the instruction of the par.C.2.2.
3. Enter into the “Printer Support” section (see fig.C.49)
4. Enter the page related to “Fonts Settings” tool (see fig.C.49)
5. Make the registration to obtain the access to the restricted page related to the fonts management (see fig.C.49).



(Fig.C.47)



(Fig.C.48)

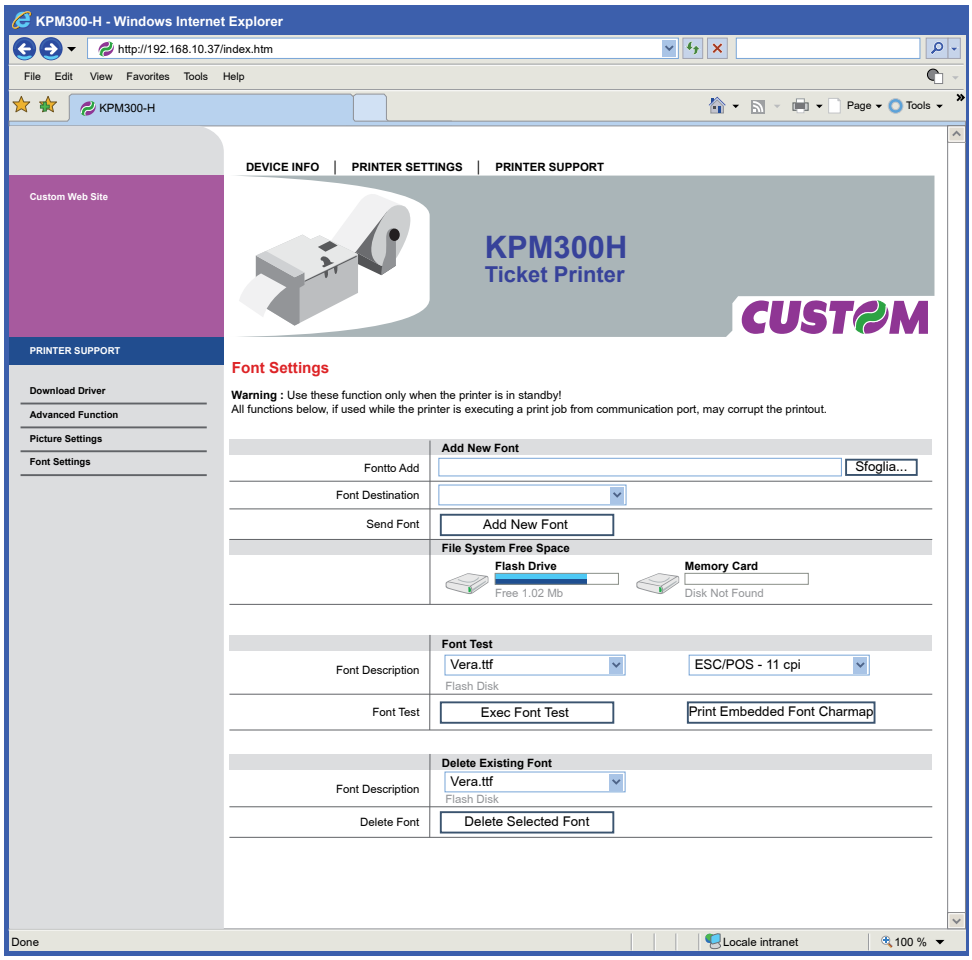

KPM300-H - Windows Internet Explorer
3
PRINTER SETTINGS
KPM300H
Ticket Printer
CUSTOM
4
Advanced Funct
Picture Settings
Fonts Settings
Download Driver
You can find on this section the printer drivers.
The drivers are stored inside the printer memory: is not needed an active internet connection
Kpm300h_rel_111_Win2K_2K3_XP.exe | | Release : 1.11 | | File Size : 37 KB
Description
Microsoft Windows GPD Driver
Related product(s) : KPM300 H
Category : Drivers
Operative system(s) : Windows 2000 / XP / Vista
Download file >>
Kpm300h_cupsdrv-1.00.tar.gz | | Release : 1.00 | | File Size : 12 KB
(Common Unix Printer System) based printer drivers
Linux
Download file >>
Connect to 192.168.10.37
5
The server 192.168.10.37 at /SETPICT.SSI requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name:
Password:
Remember my password
OK
Cancel

(Fig.C.49)

After making registration (see par.C.2.2), the “Fonts Settings” page will be displayed (see fig.C.50). It is possible to execute the following operations:

- add a new font and select the unit memory of storage (Flash Disk or SD/MMC, for the model with SD/MMC);
- delete fonts already stored into KPM300H-TF;
- execute a print with the font test.

The new font is automatically added to the “Pictures” folder and it will be therefore visible from Mass Storage and from FTP server too.



(Fig.C.50)

NOTE: Uploading the new font directly from the “Font” folder of Microsoft® Windows® directory, remember that the displayed font name into the “Font” folder may not match the real name of the font file.

Blank page

Part Number : DOME-KPM300H-TF Rev. 1.01

M . U . R . S . T .
Ministry University
Research Scientific
T e c h n o l o g y
Authorized laboratory
n o . 5 0 8 4 6 Z Y Z

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